

Fast Track *to*

GAMING



The **History** Behind Games

The **Genres**

Consoles

Top 5 Games

Gaming Resource

Gaming **Rigs**

Future of Gaming

A **Mixed Bag**



Fast Track to **Gaming**

By Team Digit

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Games People Play

Remember PacMan? There was a time when it was the hottest game around, and it got better when colour screens became the norm. There were actually colour dots that had to be gobbled! That was 1988.

Today, games have grown from being a mere pastime. They are a passion. What's more, they constitute an industry that commands respect and is often seen in awe for what it has achieved.

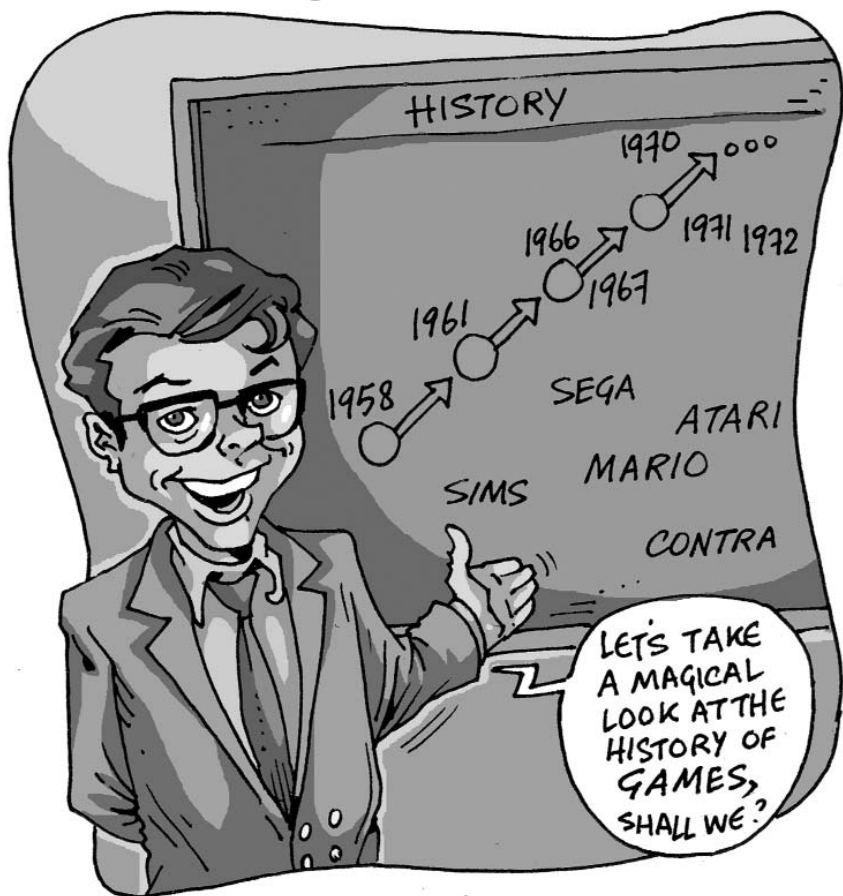
Would you touch a game today that doesn't have the best available graphics, sound and gameplay? Shouldn't you also be able to play it online with your buddies? What about improvements? The publisher must release mods (with or without hot coffee!) periodically to keep the enthusiasts going... yes, gaming has become more complicated than the simple PacMan.

As requirements and specs for games burgeon, so does the playing experience. But it's not all about resource-hungry computers and the ultimate gaming experience. Despite the fact that gaming has grown, there are many who still want it to only be a pastime.

Thankfully, there's something for everyone: sports games, arcade games, FPSes, MMORPGs, online games and Flash games that are easy to play. If you don't understand some of the abbreviations we've mentioned here, you have picked up the correct book!

This book aims at being a guide to all people about all things gaming-related - for those who have a passion for games and those who just want to have some fun. Winding our way through the various types of games and also telling you where you can get some great free stuff (always welcome, eh?), this book will also help you take your first steps into the serious world of gaming. So what are you waiting for? Let's frag!

Gaming History



From the ubiquitous *Pong* to the gut wrenching graphics and sounds of *DOOM 3*, gaming has indeed come long way. A substantial evolution in a very short span of time. We take a look at the technology and the games and how they shaped up over the last twenty years. You will also re-discover a few of your past favourites. A trip down the nostalgia lane then?

The history of computer games is obviously not as long as that of the computer, but it is nevertheless quite tricky to track. At many points it diverges from the computer to independent gaming consoles and arcade machines, only to rush back in with a fervour that any gaming enthusiast will recognise. From being played on the EDSACs (Electronic Delay Storage automatic computer) of yore to the Xboxes and PlayStations of today, computer and video/console games have traversed a long and revolutionary path.

Most of the present innovation in display and graphics technology is due to the need for better visual effects in games. The easiest way to take a look at the history behind games and their evolution is to take a look at each generation and its progress to the next.

1.1 The First Video Game

The earliest computer games were played on supercomputers. Of course, these were found only in large universities or the laboratories of large corporations or government agencies, such as, the US Department of Defence. Thus, till about mid 1970s, games were restricted from being available to the common populace.

A lot of games claim to be the first video game, and considering the number of formats and genres that exist today, this isn't surprising. If you ask a lay person to name the first PC or video game, the qualifying factor being that there must be some computing involved in the game, one of the most common answers you'd get is *Pac-Man*. This pill-chomping circle was a craze, probably the single largest gaming icon for almost a decade, but for those who came in late, here's a bit of a news flash: *Pac-Man* was released in 1980 by Midway games, almost a decade after the first console game made its debut and a good 30 years after the first ever computer game thrilled the researchers at Cambridge University.

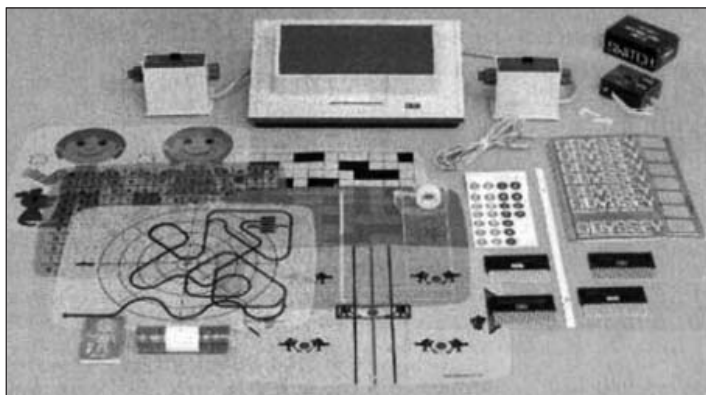
A S Douglas was the name of the scientist, and the game was OXO. If you think you haven't heard of it, think again—we call it “X-es and zeroes”! Douglas developed a graphical version of this game way back in 1952, making it the first ever video game. Developed at Cambridge University to demonstrate a thesis on human-computer interaction, OXO was played on the EDSAC, and used a CRT display. To its credit, OXO is the first known graphical game to have been played on a computer.

Douglas, however, was never credited with being the inventor or father of computer games. That distinction belongs to William Higinbotham. In 1958, he created *Tennis for Two*, a game that used an oscilloscope as a display unit. His exhibit at the Brookhaven National Laboratory in New York looked like a primitive *Pong* and played pretty much along the same lines. It showed a tennis court from the side, and the ball was affected by gravity. The controllers for the game were bulky, and consisted of a knob for the trajec-

ry and a button for firing the ball over the net. The game entertained visitors at the Lab for a whole year before it was dismantled in 1959.

These early games ran on university mainframes and were largely restricted to programmers and students who developed them as projects or as a hobby. A number of games were developed in the '60s by students, and development in games led to a number of other inventions. The most notable among these was the invention of the UNIX operating system, which was partly developed by Ken Thompson, who wanted to play a game called *Space Travel* which he was developing.

Many of the innovations even in the modern computing world come from the gaming industry. Sound cards were developed for the addition of digital-quality sound to games. These were later improved for music and audiophiles. Similarly, graphics cards and 3D accelerators were developed for GUIs (Graphic User Interface) and games.



The Magnavox Odyssey was the first home gaming console to be made

It wasn't until the '70s that video games became a major source of entertainment for the masses. With the release of the Magnavox Odyssey in 1972, video games entered the average home. It was built around analogue electronics. The console connected to a home TV

set, had over 300 different parts, and used 12 different plastic overlays for the screen. The game sold around a lakh units, but never went on to hit the big league—it went pong!

A game that drew in millions of gaming enthusiasts and that has become institutionalised as one of the biggest hits in the arcade gaming genre, *Pong*, created by Nolan Bushnell, the founder of Atari, brought droves of visitors to gaming arcades in the US and Europe. The game is loosely based around table tennis, and takes an overhead view of the court or table. Atari sold 19,000 *Pong* machines, and imitators soon followed.



Created by Nolan Bushnell, *Pong* was the first gaming sensation

Atari released the Video Computer System, also called the Atari 2600, in 1977. Aimed at the home user, this became the largest-selling console and was the undisputed market leader for a long time.

The Atari 2600, however, wasn't the world's first cartridge-based game console. That would be the Fairchild VES—later renamed the Fairchild Channel F—which was released by Fairchild Semiconductor in 1976.

In the earliest consoles, the code for one or more games was hardcoded into microchips using discrete logic, and no additional games could be added. In the case of cartridge-based games, the programs were burned onto read-only chips. When the cartridges were plugged in, the general-purpose microprocessors in the consoles read the cartridge memory and ran whatever program was stored. Rather than being confined to a



Atari 2600, a popular video computer system, made gaming a household affair

small selection of games included in the box, consumers could now amass libraries of games.

The advent of cartridge-based games gave rise to a number of independent game publishers. Activision was among the first third-party games developers. This was the beginning of the “8-bit era”. Intellivision, introduced by Mattel in 1980 (though part of the “8-bit era”) had a processor with 10-bit instructions, allowing for more instruction variety and speed.

Early cartridges were 2 KB ROMs for the Atari 2600 and 4K for the Intellivision. This upper limit, of course, grew steadily.

1.2 Arcade Games And The Early 1980s

The early '80s saw the advent of arcade games. These coin-operated machines were generally programmed to play one game and were customised accordingly. Mostly found in places such as fast food joints, arcade games were huge hits. The controls in an arcade game were very basic and consisted of joysticks or push buttons.

The so called 'Golden Age' of arcade games reached its peak in the early '80s. During this time, a number of new genres were established, and many new innovations in graphics technology were taking place.



Eye-catching arcade machines were custom designed for games

Games such as *Defender*, released in 1980, were among this crop of genre definers. The game was revolutionary in many respects—it was the first to show actions other than those initiated by the player and it took place outside the player's view.

Games such as *Pole Position* used pseudo-3D graphics, and were the first to use the 'rear-view racer format'. This style became the norm in most racing games, and is still used as an option in games such as *Need for Speed*.

Computer gaming didn't happen until 1982 when two machines were released specifically for gaming—the Commodore 64 and the ZX Spectrum. Initially, the low image-processing quality and graphics capabilities of computers limited the types of games released for home computers. These limitations gave rise to text-

based adventure games. Games such as *Adventure* and *Zork* established this genre for consoles and PCs.

When affordable computers started catching up and surpassing the graphics of consoles in the late '80s, games with motion graphics and other genres became more popular. The text adventure was later classified as interactive fiction, and a small, dedicated fan club has kept the genre going—with new releases being offered for free.



The Commodore 64 was one of the earliest gaming computers

In 1980, a game called *Mystery House* was published for the Apple II. This game has the distinction of having been called the first graphic adventure for home computers. The graphics, though, were simple static monochrome drawings, and the interface consisted of typed commands, but the game still proved very popular at the time.

In 1983, SuperSet Software created a text-based computer game called *Snipes*. This game, played over a network, was designed to test a particular network. And that led to an invention that brought about a big change in the network capabilities of a machine: today *Snipes* is officially credited as being the original inspiration for Novell Netware. The game is also the first network game ever written for a commercial personal computer, and is recognised alongside 1974's *Maze War* (a networked multiplayer maze game for several research machines) and *Spasim* (a 3D multiplayer space simulation for time shared mainframes) as the precursor to multi-player games such as *Doom* and *Quake*.

Games without graphics, however, wouldn't have retained a wide audience interest. Graphics and new sound features were



Maniac Mansion was first game to allow for a point and click interface

needed. The first game to use coloured graphics and the now-normal third person perspective was *Quest*. However, you still had to type in text commands to make your character do anything. Point-and-click was yet to emerge as the de facto command method. The first game that allowed a point-and-click interface was the 1987 adventure game *Maniac Mansion*. This game, released by LucasArts, went on to become a bestseller, and point-and-click became the norm.

Personal computers were hampered by poor graphics quality, but in 1984, IBM released the PC/AT. This new computer had a 16-colour EGA display. With the new display on the cards the PC soon became a very competitive gaming platform and was ready to take on pure gaming computers such as the Commodore 64. The advances in the graphic and image quality however wasn't quite supported by a similar gain in sound quality.

Nintendo released an 8-bit console called Famicom in the late 1980s. And the game that pushed this console into becoming a resounding success was *Super Mario Bros.*

The days of the 8-bit machines were numbered; limited graphics manipulation by the processor and weak sound output wouldn't help sustain an industry that was already seeing a glut of games for every conceivable genre.

In 1985, Atari and Commodore released a new set of machines, the ST and Amiga respectively. These consoles were 16-bit machines; their high cost, however, deterred gaming enthusiasts from going all out for them. At around the same time, in 1987, IBM developed a new line of PCs, the PS/2. This line of computers had a new display standard, called VGA, which gave the computer the potential to display 256-colour graphics.



It was the IBM PS/2 that ushered in the era of low cost computers

1.3 Online Gaming, Handhelds And The Late 1980s

With the reduced market demand for arcade games and the high cost of newer consoles, a new segment emerged. This was the handheld games market. The development in LCD technology and LEDs fuelled, this parallel segment. The predecessors of today's



The entire range of handheld gaming devices spans four generations starting from the Nintendo Game & Watch to the PlayStation Portable



According to popular opinion, MMORPG is future of gaming

handheld gaming devices include the PlayStation Portable, the Nintendo Revolution among others. In fact, it was Nintendo that pioneered the handheld gaming revolution across the world.

Improving LCD technology meant that the new handhelds were more reliable and consumed lesser battery power than LED games. The fallout was that handheld gaming devices required smaller batteries to run, which resulted in reducing their bulk.

A typical handheld console could function perfectly well on regular watch batteries. It wasn't until much later that even handheld games introduced cartridge-based consoles such as the Nintendo GameBoy and colour screens with the Nintendo GameBoy Advance. Most portable gaming devices can now connect to a network and participate in online gaming as well.

Online gaming finds its roots in the bulletin board systems of yore. BBSes then had crude text-entry interfaces. However, the fact that people were connected to each other using the BBSes

meant that multi-player gaming was a possibility. Because of the obvious limitations, most games on BBSes were text-based games or popular gambling games. The most natural progression for these games played on the bulletin board systems was online gaming, and has today spawned a number of online gaming concepts such as MMORPG.

Internet gaming took off only after first person shooters came into vogue. Games such as *Quake* could be played over the Internet (or any other network) and this increased the popularity of these games as well as other online multiplayer games. Multiplayer capability is now the norm in all FPS and RTS games. Online gaming also includes a genre called simply 'Internet games'. These simple Flash or Java-based games are typically of a very small size, and can be downloaded to your browser without any installation required. Even the MMORPG (Massively Multiplayer Online Role-Playing Game) games such as *Final Fantasy*, have become commonplace.

1.4 The 1990s—Rise Of The New Machines

In the 1990s, the gaming industry developed into gargantuan proportions. Budgets were increasing at a fast clip and a number of small publishers were being snapped up by the bigger players. There was an increase in the consolidation of



DOOM defined the First Person Shooter (FPS) genre

game publishers, and the gaming industry started acquiring a Hollywood-style image. Here the stars were the game characters. This rise in the budgets in games was directly linked to the increase in computing power and the dramatic fall in the prices of processors such as the Intel 486 and the Motorola 68000.

The 1990s saw massive developments in 3D graphics technology and multimedia capabilities. The PC was fast replacing the console as a preferred gaming device.

In the early 1990s, smaller developers preferred publishing their games by distributing shareware copies of their games. This gave the user a chance to try out a new game by playing part of it and then deciding whether or not he wanted to buy the entire game. Typically, shareware versions of games were distributed on single floppies.

This method soon ran into practical difficulties as the size of the games started increasing. Fitting the larger games onto floppies seemed impossible, and the reliability of the media, too, posed a major problem. This gave rise to the practice of handing

out demo versions on compact discs. Publishers and retailers ideally distributed these game demos with gaming magazines.

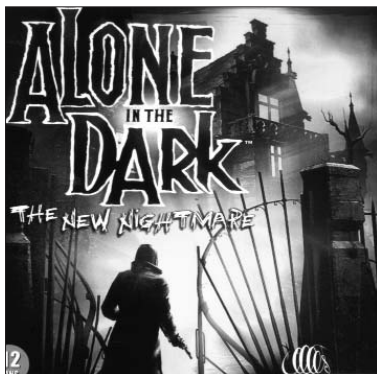
Developments in computers were then happening at a very fast rate: Moore's law was being followed like a religion, and soon, 3D graphics were becoming a reality. *Doom*, released in 1993, defined the FPS genre, and made the distinction between FPS and first-person perspective games clear.

The early '90s saw an improvement in the graphics quality offered by PCs—this led to the establishment of new genres and innovations in the older ones. Real-time strategy games soon underwent massive changes in gameplay and graphics. *Dune2* (1992) set the standards for other RTS games to follow. It, however, was not the first strategy game ever made—that would have to be the 1984 classic, *Ancient Art of War*.

Alone in the Dark, also released in 1992, led to the development of what we now call the survival horror genre. This game established a formula that spurred games such as *Resident Evil* and *Silent Hill*, which became bestsellers in both the PlayStation and Xbox formats.

Adventure games, the earliest of all game genres, also evolved as quickly as any other genre, and the newer games brought about the concept of graphical interaction into gaming and integrated it with text as well as point-and-click commands.

In 1993, a game came along that used the CD-ROM as the storage format: *Myst* was one of the first computer games to make full use of the new, high-capacity CD-ROM. The game went on to



Alone In The Dark was the first of the survival horror genre



Myst and its subsequent versions were the best selling games of all time

become the best-selling game of all time, and resulted in the development of a new series as well a sub-genre that integrated both adventure and first-person perspective.

It is widely believed that it was the overwhelming popularity of *Myst* that made CD-ROMs standard devices on computers!

It was in the '90s that Maxis began publishing its successful line of simulation games, not the flight simulation type, but the ones that involved building cities. The publisher started off with *Sim City*, and continued with a variety of titles: *Sim Earth*, *Sim City 2000*, *Sim Ant*, *Sim Tower*, and the wildly popular day-to-daily life simulator, *The Sims*.

Improvements in gaming technology kept up, and the first 3D accelerator cards affordable by laypersons was developed by 3DFX. This relieved the CPU of much of the graphic rendering duties and eased the pressure on it. Later on, games became a benchmark using which the capabilities of any new graphics or sound device were to be tested. (The most common games used as benchmarks are the first person shooter (FPS) games.)

With over a decade of serious gaming behind them, gaming enthusiasts took to a new form of recreation—that of modifying the game at hand. The earliest mod was probably *Castle Smurfenstein*, a mod for *Castle Wolfenstein*. Soon, game designers too realised that custom content increased the lifespan of their games, and thus began to actively encourage the creation of mods.

The game that has spawned the most successful and widely-played mod of all time is *Half-Life*. The mod was a squad-based shooter titled *CounterStrike*.

Gaming has spawned innovation in a number of spheres, from the most obvious ones such as graphics and sound to operating systems, media such as compact disks, and also networking technologies.

The Genres



As in any other entertainment industry, gaming too, has its own unique genres. The difference is that there are probably a million genres and sub-genres in gaming, and even then it is hard to classify some games within a particular genre! However, games can be broadly classified as belonging to the Action, Strategy, Adventure, Simulator, Arcade, Massively Multiplayer Online and Mobile genres. Let's take a look at each as we try to make sense of them!

2.1 Action Games



Nothing better to get the good old adrenalin pumping than an action game!

As the name suggests, action games have everything to do with fighting, guns, killing bad guys and saving the world. Action also happens to be the most well-known of all genres, and the most controversial at the same time. While gamers and developers go gaga over the latest action games, they also come in for a lot of flak from the media for promoting violence.

For instance, the Columbine shootings, where a school student shot a few of his classmates before killing himself, was blamed on the game *Doom*. Some claim that games such as *Doom* or *Grand Theft Auto* promote violence by rewarding it within the game. But at the same time, there are others who say that such games actually prevent real-life violence by providing a safe outlet for aggression. In the end, there is precious little scientific proof to support the view that violent games promote violence—so, assuming that you're mature enough, feel free to pick up one of these games and kick some bad-guy butt!

All action games today also feature the ability to play online against other (human) opponents. With the advent of broadband, online gaming has become extremely popular, with more and more gamers testing their abilities online against the top players in the world.

The action genre has many sub-genres. A few of them are:

- A) **FPS:** Probably the most famous of all genres, FPS stands for First Person Shooter. It places you in the boots of the main character of the game, and only lets you see the game from his point of view. This gives you the feeling of actually being in the game. Some popular and successful games today are FPSes, for example, *Doom 3*, *Half-Life 2*, and *Halo 2*.



The FPS genre can be further sub-divided into the following (try not to get confused as we talk about sub-sub-genres!)

- i) **Stealth:** These games are based on the ability to sneak around without being seen by opponents. They are different from traditional FPSes because they place more emphasis on sneaking around rather than on an all-guns-blazing approach. Thus, these games are also designed in such a way that a player will quickly be fragged if he were to try the gung-ho approach.



Stealth games are about staying hidden and still getting the job done

ii) **Old School:** These feature the run-and-gun type of gameplay. Action in such games is fast paced, with tons of enemies. The best way to play them is to be constantly on the move while shooting your enemies—hence the run-and-gun nickname. The original *Wolfenstein*, *Doom*, and *Serious Sam* are perfect examples of old school FPSes.



Top: The original *Doom*

Bottom: The idea is simple; kill anything that moves!

iii) **Tactical:** These games place emphasis on tactics, strategy and teamwork. In many ways, these are the exact opposite of the run-and-gun type of games. That style of play would be the fastest way to get killed here! Instead, one has to work as part of a team, plan out a strategy in advance, and use the correct tactics in a given situation in order to succeed.

The perfect example of a tactical FPS is the entire *Tom Clancy's Rainbow Six* series. Other notable games in this genre are the *SWAT* series, *Operation Flashpoint* and *Killzone*.



Working as part of a team is essential for tactical games

- iv) **Military/War:** These are military games, based on the art of war. Examples are the *Medal Of Honour* series and *Call of Duty*.

As the player, you are placed in various war missions, which may not enable you to single-handedly save the world, but are nonetheless important in the ultimate outcome of the war. Traditionally, World War II and the Vietnam War have been used as the setting for such games. That's, of course, not to say that other wars such as World War I or the Iraq war have not been used.



Accurate depiction of war is predominant in the War FPS game



A third type of game also uses fictional wars as a setting. These are usually set some time in the future, and generally consist of the world's major countries going at each other's throats (again!).

- (v) **Survival Horror:** This is a relatively new sub-genre in FPS gaming. Here, the player is placed in a scary situation, usually involving ghosts or monsters; the sole objective of



With monsters like this, no wonder it's called the Survival Horror genre!

the game is survival. Naturally, the basic gameplay consists of running and gunning, but puzzle-solving elements are also usually built into the game. *Doom 3* is a great example of the survival horror genre.

B) **TPS:** TPS stands for Third-Person Shooter. Games in this category are similar to FPSes in most aspects, except that instead of giving you a first person view, it places you 'outside' the body of your character. The camera is usually placed behind the in-game character. Thus, instead of getting a feeling of being in the game yourself, you get to see your character in action from a vantage point.

There are a number of third person shooters out there, with *Shellshock Nam 67* and *The Punisher* being the best examples. It is worth noting that the boundaries between the TPS genre and some of the FPS sub-genres are being blurred today. Some games offer you the ability to switch



All the action is seen from behind the shoulder in a TPS



Duke Nukem Manhattan Project—one of the greatest platform games ever!

between first-person and third-person views. Also, some third-person games can also be tactical or stealth-oriented, such as *Tom Clancy's Splinter Cell*.

C) **Platform:** This genre consists of games where the player has to move around on, or jump to and from, a number of platforms. At the same time, one also has to fight enemies and collect objects to successfully complete the game. The genre originally consisted of 2D games, back when 3D graphics weren't a reality. *Donkey Kong*, *Super Mario Bros* and *Pitfall!*—a game released for the Atari 2600 console—were the most notable games in this genre.

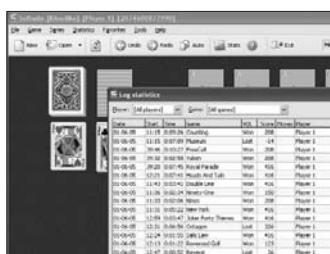
As hardware advanced, platform games (a.k.a. platformers) went 3D. This had obvious advantages, the biggest being that it allowed the player to explore the environment, rather than just move along a straight line. *Super Mario 64*, *Prince Of Persia*, *Tomb Raider* and *American McGee's Alice* are some of the best-known 3D platformers.

2.2 Strategy

Strategy games place the spotlight on the player's thinking and decision-making abilities. That's why some people call strategy games "the thinking man's game". All actions that the player takes have a major impact on the outcome of the game, as opposed to, say, FPSes, where the player simply does what he is told to do by the game. The strategy genre can be further sub-divided into:

- (A) **Puzzle:** Puzzle games involve solving puzzles, which could involve, logic, pattern recognition, and strategy. These games are extremely popular because of their simplicity and ease of use. *Tetris*, *Minesweeper* and *Solitaire* are examples of puzzle games.
- (B) **RPG:** RPG stands for Role-Playing Game. They generally involve long, intricate plots with an emphasis on character development. As the game progresses, the characters gain various abilities and can achieve feats. The gamer has to choose which feats to acquire so as to complete the game. Today a number of games incorporate RPG elements, but can be distinguished from proper RPGs by the unique gameplay of the latter. *EverQuest*, *Star Wars: Knights Of The Old Republic*, *Baldur's Gate*, *Runescape* and *Neverwinter Nights* are just some of the more well-known RPGs.

A lot of RPGs involve a storyline that is driven forward by player responses. The direction the game takes thus depends completely on the gamer himself. *Star Wars: Knights Of The Old Republic*



A typical puzzle game would look similar to the above

is an excellent example: the game has four different endings based on the choices the gamer makes.

Another feature commonly found in most RPGs is that the lead male and female characters end up being romantically linked by the end of the game!

B) Turn-based Strategy Games:

This sub-genre consists of strategy games that allow the player a period of analysis and thought before making his move. The opponent makes his move only after that, hence the name ‘turn-based’ strategy. *X-COM*, *Heroes Of Might And Magic*, *Jagged Alliance* and *Total War* are well-known games in this genre. The market today, however, is seeing a shift towards real-time strategy games, which we talk about next.

C) **Real-time Strategy Games:** As the name implies, the action in such games takes place in real-time—that is, the state of



RPGs may look a little weird, but they're great fun!



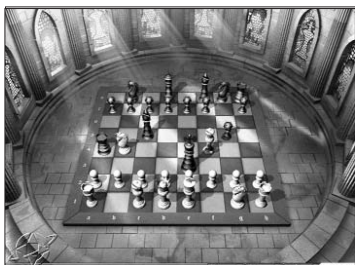
Good-old turn-based strategy games like this are virtually extinct today



Now it's Real-time strategy games like these that are popular

the game is constantly changing. Hence the player has to always be on his toes and keep modifying his strategy to match changing environments. These are known as RTS games for short, and have become extremely popular today. The *Command and Conquer* series, *Warcraft*, *Starcraft* and the *Age Of Empires* series are the most popular RTS games available today.

D) Board games: Board games are simply digitised versions of classic board games. Games such as backgammon, chess, and checkers have all been made for computers, as you're probably aware.



E) Sims: 'Sim' is short for 'simulator'. Sims are simulator games that usually put their focus on strategy. Games such as *Rollercoaster Tycoon*, *Pizza Tycoon*, *The Sims*, and *Sim City* are examples of sims.



Classic boardgames like chess are given a new look in the digital world

Such games usually start off with the player being given a few resources. He must complete a number of challenging objectives on his way to winning the game. Another aspect of sims is godgames—here there are no real objectives; the idea behind the game is that you are god-like, and can therefore do anything you want. For example, in *The Sims*, you can do absolutely anything you want, from making your Sims millionaires to making them homeless bums!

The *Sims 2*—a popular sim that puts you in the shoes of God!



2.3 Adventure

Adventure games are characterised by exploration, puzzle solving, character interaction and an emphasis on narrative. Games belonging in this genre have fantasy, horror, mystery as well as comic elements in them. Once again, the boundaries of this genre are not rigid. Many adventure games can be considered RPGs and vice-versa. But generally, RPGs focus on character development, and adventure games focus on narrative. Still, there are many games that incorporate both elements.

The standard adventure games died out when 2D was replaced by 3D. Today, most adventure games are a mix of a number of genres. For example, *Prince Of Persia: The Sands Of Time* is a mix of action and adventure elements, with a third person view.

There are exceptions, though. Games such as *Myst* continued to be popular even in the 3D era. But the fact remains that adventure games are no longer major players in the gaming industry.



Mystical and magical worlds are what adventure games are all about



2.4 Simulators

Simulators are games that focus on accurately recreating a real-life situation in as much detail as possible. Realism is the most important factor here, with every attempt made to make the game as true to real life as the software and hardware can allow. The craze for realism has been taken to incredible levels today, with some games so realistic that they can be used to train professionals in their respective fields! This genre is sub divided into:

a) **Flight Simulators:**

Flight simulators, obviously, try and re-create aircraft and their controls. They attempt to copy the controls found on an aircraft—commercial or otherwise—as well as the difficulty in actually flying one. *Microsoft Flight Simulator* is an excellent example. In fact, it's so realistic that it can even be used to train budding pilots in the operation of those aircrafts!



Microsoft Flight Simulator is the most popular flight simulator today

b) **Racing Simulators:**

Racing simulators are based on accurately re-creating racing environments. This category includes not only car races, but virtually any kind of race, take boating, for instance. The most popular games in this sub-genre are naturally of the car racing variety, with games based on F1 and rallying among the most popular. *Colin McRae Rally 2005*, *MotoGP4* and *Gran Turismo 4* are the best-known titles of this type.



MotoGP4 is a famous racing simulator, known for its realism

c) **Combat Simulators:** These take the realistic elements of simulators and adapt them into a combat-style game. Here, defeating your opponent is the ultimate objective, but it can only be done if you have a good knowledge of how to operate the machinery the gamer is given, in realistic conditions. Combat games can be set in various environments—land combat games (such as *Delta Force*) and aerial combat games (such as *Crimson Skies*) are the most popular.

d) **Sports Simulators:** The objective here is very simple—to recreate the playing conditions of a particular sport in the most realistic way. Of course, that's easier said than done! Sports simulators tend to be the most difficult to make, with a lot of effort going in to make them realistic, without making them confusing or unwieldy for the gamer. Often, real-world physics have to be incorporated into the games—such as spin, curl, swing, and bounce. The end result is usually a game that is extremely realistic and challenging.



Combat Simulators such as *Delta Force* are very popular today



Today, few Sports simulators are better known than the *FIFA* series

Virtually all sports have their own games today—the *Brian Lara* series for cricket, the *FIFA* series for football, the *MotoGP* series for MotoGP racing, *TopSpin* for tennis, and so on.

2.5 Arcade Games

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Arcade games refer to Flash-based games available on the Internet. They are characterised by simple graphics as well as simple but addictive gameplay. This can be considered gaming for the masses, because you don't need upper-end hardware or any amount of expertise in games to play them.



Arcade games are immensely entertaining

If you have an Internet connection, a Web browser, the required plug-ins and some free time, you're ready to play!

Flash games are a dime-a-dozen on the Net, from the wacky (*Kill Harry Potter*) to the sporty (*Stick Cricket*), to the absolutely ludicrous (*Get the Moose Drunk*).

2.6 MMOG

MMOG stands for Massively Multiplayer Online Game. Online gaming has really taken off at present, with broadband Internet becoming a reality for a large number of people. Not only do we have the (usually online) games where a few players take on each other, we now have MMOGs, where thousands of players can be online simultaneously in a simulated environment. The difference between MMOGs and regular online games is that the latter usually have up to 50 players on a single server, which is hosted privately. Also, the action takes place in one out of a number of maps that are provided by the game manufacturer.

MMOGs, on the other hand, have hundreds—sometimes thousands—of players online at the same time. The game publishers themselves provide the servers, and the action takes place in a common environment. The most popular MMOGs are:

- a) **MMORPGs:** MMORPGs (Massively Multi-player Online Role-Playing Games) are the most popular type of MMOGs. They follow the client-server model, where the gamers running the client's software are represented in the online world they inhabit via an avatar. The online world is hosted on a server that is usually owned and setup by the game's publishers. In fact, Most MMORPGs are not free for use—the gamer must buy the game and pay a monthly fee for access-



MMORPGs may look like regular RPGs, but that's where the similarity ends!

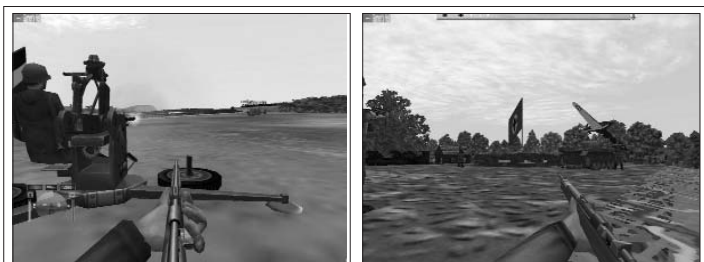
ing it. After that, the player is free to do what he wishes in that game's online world.

The game developers themselves keep updating the game content to keep existing gamers (and therefore customers) happy as well, and in turn entice new ones. These games are just as addictive as their offline brethren, in fact, dangerously so at times. There have been numerous cases of marriages breaking up in Europe and the USA because husbands spent too much time with their favourite MMORPG as compared to the time spent with their wives! It's true!

The most popular MMORPGs are *EverQuest II*, *World Of Warcraft*, *The Matrix Online*, and *Star Wars Galaxies*.

India, too, has been bitten by the MMORPG bug, with *Ragnarok* being popular among Indian gamers.

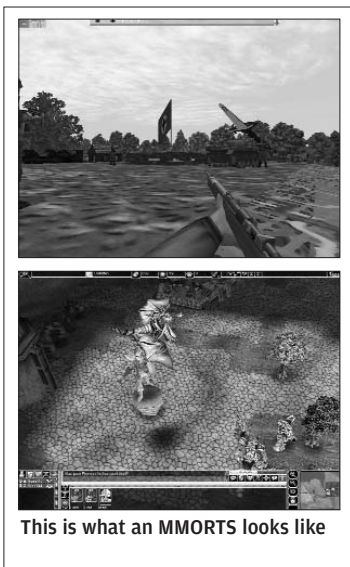
- b) **MMOFPS**: This is a massively multi-player version of the traditional FPS. Although the idea of having thousands of gamers online in an FPS game sounds enticing, it has proven to be difficult to put it into practice. One major problem has been the fact that, by their very nature, the games require fast reaction times; thus, hosting a server in a centralised location means increasing lag times for gamers around the world, thereby rendering the game unplayable.



MMOFPSs are relatively popular, despite the dated graphics

Further, MMOFPSes require advanced machinery to play, which is something only hard-core gamers (or the filthy rich!) are going to have. Hence there aren't many MMOFPSes, nor are they as popular as MMORPGs. Some MMOFPS' popular today are *World War II Online* and *PlanetSide*.

- c) **MMORTS:** The third and probably least popular category of MMOGs is the MMORTS, where RTS stands for Real Time Strategy. Once again, it incorporates the offline elements of a regular RTS and adapts them for online play with thousands of gamers.



This genre has never been as popular or received as much publicity as the other two MMOG genres, and its image has not been helped by numerous setbacks—promising MMORTSes such as *Dune Generations*, *Trade Wars* and *Sovereign* have been cancelled in the past: development was started on them, but the developers and/or the publishers pulled the plug before the game could be released.

Today the major MMORTSes are *Shattered Galaxy*, *Mankind*, *Project Visitor* and *Ballerium*.

2.7 Mobile Games

Mobile Games are the latest development to have occurred in the digital world. Ever since mobile phones could do more than just phone calls, mobile games have taken off. The industry has seen a boom ever since the advent of GPRS, with its ability to transfer large amounts of data wirelessly. There are some natural limitations on the games, of course, the hardware capabilities of today's cell phones can't support games with flashy graphics. The games focus more on the gameplay, and developers try to make the games fun and addictive enough to entice customers.



Mobile gaming-mindsweeping?

Mobile gaming has captured the imagination of people the world over. It has become an avenue of gaming for the masses. India has seen a boom in this industry over the last two years. The most popular games here are those based on Bollywood movies, and those with racing themes. With the games priced anywhere between Rs 15 and Rs 150, the game developers and network providers are laughing all the way to the bank!

Consoles



Where would the gaming industry be without the invention of the gaming console? These babies started out as humble, slow machines with bread-boxish looks, but they get the credit for bringing gaming into the common man's house. Consoles single-handedly popularised the concept, among the masses, of gaming as a way to pass the time, and laid the foundation for what has today become an industry even bigger than Hollywood! Here we take an in-depth look at this machine.

3.1 The Beginning of Time...

Consoles started to make their appearance during the early '70s, with the Magnavox Odyssey 100 credited as the very first game console ever. Back then it was very easy to identify game console apart by its looks. They were big and extremely bulky compared to today's consoles.

Moreover, they worked with cartridges rather than the now-customary CD or DVD. Nevertheless, some aspects have remained unchanged over the years, however: till date, consoles need to be connected to a TV for viewing (unless it is a handheld, like the Sony PSP). Furthermore they still come with their own, unique controllers. But this isn't true all the time—today it's possible to plug in keyboards via USB.



Pong being played on a home console

The history of consoles begins with the 1972 Magnavox Odyssey. It is credited as being the very first gaming console, and therefore with establishing the video games industry. Legend has it that Ralph Baer, the person credited with having invented the very first video game, created a video game console prototype in 1967, called the Brown Box. This system, which later became the standard template for all consoles, was presented to the RCA (Radio Corporation of America), who were unimpressed. It did however catch the eye of one of the RCA employees involved in the negotiation process, who then left the company for Magnavox. Magnavox then acquired the rights for Baer's technology, and, like they say, the rest is history.

The year 1975 and 1976 saw the release of the *Atari Pong* and the *Coleco Telestar* respectively. Both were single-game systems, only letting you play their respective version of the game *Pong*. (Incidentally, Atari was sued by Magnavox, who claimed that their *Pong* game was too similar to Magnavox's *Tennis*. Atari eventually had to pay Magnavox.

The next big step in consoles came in 1976 with the Fairchild Channel F a.k.a. the Fairchild VES (video entertainment system). This was the very first console to feature a cartridge-based game system, which meant a person could play multiple games on a single console. Thus, not only could one play the two in-built games, but with the cartridge came the ability to play four other games.

In hindsight, the Fairchild was also revolutionary simply because its design closely resembles a modern console. It came with two controllers with rotating buttons that could be pressed, and also featured a pause mode, which was unheard of at the time.

By 1977, the RCA realised their mistake and decided to enter the console market themselves. The result was the RCA Studio II. They were made to rue their decision not to adopt Baer's technology, because the Studio II bombed at the market. It was an inferior piece of technology (it only gave black-and-white graphics) and was promoted poorly. All in all, this was a console that was soon forgotten.

In retrospect, 1977 was destined to become a part of gaming history. It was in this year that Atari launched their legendary Atari 2600 console. Code-named 'Stella,' it was radically different in its design because unlike other logic-based consoles, its core was a complete CPU. It also used a custom-built sound and display chip called the TIA (Television Interface Adaptor). Launched at a price of \$199 (Rs 1,800 back then), it was direct competition for the Fairchild. Even Atari added a VCS (Video Computer System) suffix to the console, as compared to Fairchild's VES. Not to be outdone, Fairchild promptly renamed their console the Channel F. Neither

console was an immediate success though. The public had seen one *Pong* knock-off too many, and both companies faced major losses in the beginning.

Fairchild pulled out of the market while Atari stuck on. The move paid off, and when the public realised it was possible to play games other than *Pong*, sales took off. The 2600 sold well right into the '80s, selling well over eight million units. In fact, many gamers fondly refer to it as the console that never died. Even today, enthusiasts make games for the 2600, and collect old games. Over its lifetime, a reported 25 million units were sold, with a games library of over 900 titles.

Atari had also released updated versions of the 2600 to capitalise on its success (the 2700, 2800 and the 2600 Jr.), but none were ever as popular, or acquired cult status the way the original 2600 did.

The next two years saw the release of the Magnavox Odyssey 2 and the Milton-Bradley Microvision, in successive years. Both enjoyed moderate success without setting the industry alight. The next milestone was the release of the Mattel Intellivision in 1980. Developed by Mattel Electronics (a subsidiary of Mattel Toys), it was the very first console to successfully challenge the supremacy of the Atari 2600. Excellent marketing was a big reason behind this, as were superior hardware capabilities. A series of advertisements highlighting the superiority of the Intellivision as compared to the 2600 really hurt the latter.

In many ways the Intellivision was a pioneer, setting the standards for others to follow. It was the first 16-bit console, and the first to provide real-time voices via an add-on peripheral called the Intellivoice, which was made specifically for that purpose. All this meant that during its 12-year run, three million consoles were sold and over 125 games released.

Once again, the next few years saw a number of consoles, none of which did spectacularly. Among these was the very first

Nintendo console, called the Nintendo Game and Watch. Nintendo was started in 1889 with Fusajiro Yamauchi manufacturing 'Hanafuda' playing cards. By 1963 they were Nintendo Co. Ltd, and were also manufacturing games. They entered the console industry in 1980 and became the Nintendo we're all familiar with today. Although not wildly successful, the Game and Watch also gets credit for debuting games like Super Mario Bros and Donkey Kong Jr.

1982 saw the release of the Colecovision as well as the Atari 5200. Right from the beginning, these were direct competition with each other, but Colecovision emerged the winner. This was due in no small part to the fact that with an add-on module, one could play Atari 2600 games on it. It sold in excess of 6 million units.

Even though more advanced, the Atari 5200 was less commercially successful due to a number of reasons. It was basically a redesigned version of the 2600, but it couldn't play games written for the 2600, which was still popular at the time. Secondly, the analogue controller was not self-centring, which made it unreliable and not at all user-friendly.

Early 1986, saw the birth of Nintendo, the console giant. They had released the Famicom (Family Computer) in Japan in 1983, selling more than three million units and more than 15 million games. They decided to launch it in the American market as well, and turned to Atari to help launch it. Atari were not too keen, so Nintendo went ahead and launched it by themselves. It was renamed the Nintendo Entertainment System (NES) and marketed as a home entertainment device. It featured classic, ever-popular Nintendo games such as *Super Mario Bros*, and was a huge success.

Credit must go to Nintendo for ensuring that high quality standards were met for their games. They had a strict third-party policy, which meant that no game could be released for the console unless they approved it. All this only ensured that their customers got the best games, and were happy with the console.

The 7800 was the next console Atari released—in an effort to revive flagging sales. Atari designed a console with much better graphical capabilities than its predecessors. It also added compatibility with 2600, and later 5200 games, to the 7800. Unfortunately, it was not meant to be. Just as the 7800 was being made ready for release, Atari, the company itself was sold to a Mr Jack Tramiel who wanted to focus on computers. As a result, the release of the 7800 was put on hold. When it was eventually released in 1986, it had to face stiff competition from the NES and the Sega Master System. This, coupled with lack of new game titles, meant that the 7800 performed badly in the markets.

The Sega Master System (SMS) was released in 1986. Sega had been making games for consoles for quite some time, and decided to enter the market themselves after looking at the success of the NES. They designed and sold the SG-1000 and Mark III systems in Japan, before moving into the American and European markets. The SMS was a redesigned Mark III and was better than the NES in terms of hardware. It was never as successful, though. A major factor here was the Nintendo policy of dedicated third-party game developers. Since the NES was so popular, it was hard to find companies that were ready to make games for the SMS. It was also poorly marketed. The SMS did do well in Europe though, especially in areas where the NES hadn't entered.

3.2 From Low-Tech To Hi-Tech

At the start of the '90s, the gaming industry was at crossroads. CDs had gained popularity for their superior quality and storage capabilities. This meant console manufacturers had to make a choice—whether to continue using cartridges or moving to CDs. While some companies stuck to the cartridge system right until it died a painful death, others were pioneers in making the switch to CD.

The first console to feature CDs was the NEC TurboGrafx-16, a.k.a. the NEC PC Engine. Although it was launched as a cartridge-based console in 1989, in Japan, NEC also shipped an add-on CD-ROM drive. This was also later released in the USA later under the name Turbo CD. It wasn't successful, because the CD-ROM attachment was extremely expensive, and games featured on the CDs were very graphics-oriented. The gameplay was left in the lurch, and novelty of the CD soon wore thin.

This meant that cartridge games would be around for a few years yet. The Sega Genesis was the next console to be released, and was basically a cartridge console (though it came with a CD add-on). Sega had learnt from the relative failure of the SMS. This time round they got as many third-party game developers to sign up as they possibly could. But their trump card was a game by the name of *Sonic the Hedgehog*. This game alone helped sell nearly six million units of the Genesis between 1990-91. In other words, Sega had struck gold with the Genesis.

With the Genesis rapidly taking control of the market, Nintendo had to do something quickly. They followed up the NES with the release of the Super NES, or SNES, in 1991. It was one of the last major consoles to use a cartridge system. Due to the stiff competition, Nintendo was forced to drop the strict licensing policies they had followed until then. Nintendo decided to allow any company to produce Nintendo games, but still rated the games themselves and promoted the better ones.

There was never a clear winner in the battle for supremacy between the SNES and the Genesis. Both stayed neck and neck till the next generation of consoles rendered them both obsolete.

What is interesting is the fact that Nintendo had approached Sony to develop a CD add-on for the SNES in 1988. Nintendo later backed out of the project due to a dispute regarding sharing of licensing revenues. The add-on was supposed to be named PlayStation, and Sony stuck to that name when they came out with their own console, just to spite Nintendo.

The Jaguar, a cartridge based console was one of the last consoles to be released by Atari, in 1993. It consisted of five processor chips, two of which were 64-bit. Thus, some recognise it as the very first 64-bit system, while others dispute that claim. In any case, it was much more powerful than most other consoles at the time. Unfortunately it did nothing to improve the fortunes of Atari, basically because of the lack of game titles.

The Sega Saturn was released in 1995 and paved the way for the Sony PlayStation. It showed the world that a console could be CD-based but affordable and fun at the same time. Sega and Sony were at war with each other at the time, and Sega beat Sony to the finish line by releasing their Saturn before Sony could release their PlayStation—or so it seemed. When Sony did release the PlayStation, it became a phenomenal success. To put it simply, it blew all the competition into orbit! The Saturn was no exception and could do nothing to beat the PlayStation.

Although released a year after the PlayStation, the Nintendo 64 (N64) was the last mainstream console to use cartridges to store games. This did have its advantages: load times were non-existent compared to CDs; cartridges were difficult to manufacture and/or duplicate, piracy declined; and the biggest advantage of cartridges was that they stored information such as user profiles and saved games. This eliminated the need for memory cards that were a must with CD-based consoles.

December 3, 1994 is a day that has earned a permanent spot in the history of gaming. That was the day Sony released the PlayStation. Sony had worked with Nintendo to develop a CD add-on for the SNES. When the deal fell through, Sony decided to use all their development work to come out with their own console. It quickly went on to become the best selling product in the company's history. With millions of top-quality games available, it quickly became a firm favourite with gamers.

In 2000, the PS was re-released as the PSOne, in a smaller casing. For many, the release of the PlayStation was the defining moment of their generation—the PlayStation generation. Because of its astounding popularity, the PlayStation almost single-handedly shaped the gaming industry as we know it today—a multi-billion dollar industry which earns more in a year than Hollywood does!

By now, cartridges had been well and truly replaced. CDs became the standard media for games, chiefly because they could store much more data, and were cheaper to mass-produce. Sega decided the time was right to come out with a new CD-based console, little knowing it would turn out to be their last ever. The Dreamcast was released on the odd date of 9/9/99. It was the very first 128-bit system and the first one to support online gaming as well. Each Dreamcast came with a built in 56K modem, with the ability to add a faster modem if required, making it relatively future-proof.

Over 500,000 units of Dreamcast were sold in the first two weeks. However, Sony soon launched PlayStation 2. Although it didn't feature online gaming, it had the ability to play DVDs—a developing market at the time. PS2 diverted the attention from Dreamcast. The launch of the Xbox and the Nintendo GameCube was the final nail in Sega's coffin. Sega didn't have the financial power to fight the likes of Sony and Microsoft. In January 2001, Dreamcast was officially discontinued, and Sega decided to focus on making games rather than consoles.

3.3 Star Wars

Right from day one in the console industry, there have been power struggles. From the good old days of the 2600 to the next-gen consoles such as the PS3 and the Xbox 360, companies have been going at each other's throats to ensure they became the undisputed market leaders. These battles came to be known as the 'console wars', and have become an integral part of the industry.

Episode 1: The earliest console wars can be traced to the 1980s and the battle between the Atari 2600, the Intellivision and the Colecovision. The 2600 was launched in the late 70s and was priced at \$199. It was extremely successful and prompted many other companies into entering the industry. One such company was Mattel, and they debuted their Intellivision in 1980. Thus the very first console war began. The Intellivision was priced at \$299, and was the first console to seriously challenge the 2600. Yet, it was the 2600 that sold more units despite being less advanced than the Intellivision, since it was cheaper and had better games available. But the war wasn't over just yet. The Colecovision debuted in 1982 and recorded good sales, and had many popular games available for it.

Ironically, the first console wars ended with bankruptcy for each combatant. The industry crashed in 1983, because of pressure from cheaper personal computers, and the general belief among retailers that console gaming was just a passing fad. Oversupplies of games and dropping prices meant that each company stopped being a major player in the industry, with some companies shutting down altogether.

Episode 2: The next console war didn't really last long. The SMS and the NES fought it out for supremacy, but with Nintendo's strict policy of dedicated third-party game developers, the SMS was no match for them. It did do well, however, in areas such as Europe, where the NES did not have much penetration.

Episode 3: This time around it was the Sega Genesis and the SNES who were battling it out. The SNES came out much later, and enjoyed good sales as well. In fact, the Genesis was in trouble at first. No one was buying the console, and that trend continued until the release of *Sonic the Hedgehog*. It was only then that it really started to become big. Although the SNES had no such trouble, it still couldn't beat the Genesis in terms of sales, and therefore lost the battle.

Once again, rather ironically, Sega won the battle, but lost the war. Their attempts to usher in CD-based consoles proved to be too hasty, and soon they were on their way out of the industry. In many ways, this was the beginning of the end for Sega the console giant.

Episode 4: By this time, the Sony PlayStation was out. It did face competition from the N64 and Sega's Saturn, but there was never really a doubt about who would come out on top. The Saturn failed because of poor marketing and lack of games. While the PlayStation is credited with tapping into a new market by selling itself as a lifestyle accessory to people in their late teens and early 20s, the Saturn was aimed at children. The end result—PlayStation becomes wildly successful, Saturn doesn't.

The N64 suffered primarily because it was the last cartridge-based gaming console. In spite of the advantages of a cartridge, the high cost of manufacturing such cartridges, and the space limits it enforced upon developers meant it never really took off. Further, the high cost of the console itself drove many potential customers away.

Bottomline—Sony won this one hands down. Nobody even came close!

Episode 5: We now come to the current generation of consoles. This time around it was Sony with their PlayStation 2, going against industry old-timers Nintendo. But a new player had entered the scene. Microsoft and its Xbox shook up the market. Although suffering initially, the Xbox did well after the first year. It never managed to dethrone the PlayStation 2, however. Sony made full

use of the popularity of the original PlayStation and added backward compatibility to the PS2. Straight away, this meant the PS2 had a catalogue of hundreds of games even before it was released.

Another master-stroke was to add DVD playback. DVDs were just starting to come into their own, and the PS2 became an irresistible package with the ability to play games and view DVDs, for a price that was relatively cheap. This means that currently, worldwide sales for the PS2 stand at a whopping 90 million units. Coming in at a distant second is the Xbox, with a relatively meagre 19 million units.

Nintendo's GameCube is struggling to beat the PS2, with only 18 million units sold worldwide. That may be only one million units less than the Xbox, but considering that Microsoft was new to the industry and that they released their console after Nintendo did, they're not doing well at all.

This round of the console wars therefore again went to Sony.

Episode 6: This will feature the next generation of consoles—the PS3, the Xbox 360 and the Nintendo Revolution. The Xbox 360 is due for release in late 2005, and may gain a foothold in the market because of its early release. The PS3 is due for release only in mid-2006. The Xbox 360 is promising even better hardware than last time, as well as backward compatibility and a ton of new games with the biggest developers in the world. The PS3 is not far behind either, and will feature the Cell processor, supposedly a jaw-dropping 35 times faster than the PS2. It will also feature backward compatibility with PS2 and PS1 games.

Nintendo also seems to be considering innovation. Take for instance, their controller for the Revolution—it will be wireless, and motion sensors will allow a movement of the controller in the players' hand to translate into in-game movement. While it is too early to bet on one player for the next-gen console wars, Sony has to be favourite, simply considering their past record. Only time can tell for sure.

3.4 Current Generation Consoles

The current generation of consoles include the PlayStation 2, the Xbox and the GameCube. This generation rode on the success of the original PlayStation and used it to sell even more consoles. The present crop of consoles is on the verge of obsolescence as the next-gen consoles are all ready for release.

PlayStation

Sony decided to usher in the next generation of their PlayStation in 2000 with the PlayStation 2. Like we've said, right at the outset, Sony ensured it would be a success by enabling backward compatibility with games from the original PlayStation. When launched, it did go through a rough patch: hardware shortages left consumers frustrated, and game developers complained about the difficulty to develop games for the system.

At this point, it was the backward compatibility and support for DVDs that was selling the PS2. Eventually the games did come, and boy, did they make an impact! The summer of 2001 saw one blockbuster after another and pushed the PS2 miles ahead of the competition (the Xbox and the GameCube).

Sony has now stopped manufacturing the PS2, as it prepares to usher in the third generation of the PlayStation with the PS3.

GameCube

Nintendo was one of two major competitors for the PS2, with its GameCube. Launched in 2001, the console is shaped like a cube—hence the name. It comes in a number of colours and uses the GameCube Optical Disc instead of CDs. The GameCube Optical Disc is a proprietary format, with the disk only 8 cm in diameter, and a storage capacity of 1.5 GB. The GameCube also came with the ability to connect to a Nintendo GameBoy, a handheld gaming device. Although it has done well, largely due to aggressive pricing, the GameCube has fallen behind the two giants of the industry today.

Xbox

Fall of 2001 saw the release of one of the current giants of console gaming, and perhaps the only console that could topple the PS2—Microsoft's Xbox. Microsoft had been involved in gaming for some time, with games such as *Age Of Empires* and *Microsoft Flight Simulator*. So it wasn't really a huge surprise when Bill Gates announced that Microsoft would be releasing their own console. What was more interesting was whether Microsoft would be able to dethrone Sony as the top dogs of the console business.

There were fears that Microsoft might dominate the market like they did with Windows. At first the Xbox didn't do too well, and lack of good games damaged its reputation. It was an accepted fact that the Xbox was superior to the competition in terms of hardware, but many feared that there might be too much emphasis on performance rather than good gameplay. After a torrid first year though, things started to pick up. Better games and the XBOX Live! online gaming service helped it overcome initial criticism to win over customers.

Today, neither the Xbox nor the PS2 have control over the market, although the PS2 is ahead of the Xbox. Microsoft, too, is all ready to launch the XBOX 360, so the Xbox will soon be rendered obsolete.

3.5 The Games

OK, so we know that the current generation of consoles are great pieces of hardware. But what about the games? They're the most important part of any console, and without good games a console is doomed to fail. Because the current generation of consoles have been around for a long time, there are hundreds of games that are great and have been very successful. We'll take a look at two games per console.

PlayStation 2

Gran Turismo 4

Gran Turismo is one of the biggest racing games for the PlayStation and PS2. It has always pushed the envelope in terms of realistic gameplay and excellent graphics. *Gran Turismo* 1, 2 and 3 were all runaway hits. The entire world was waiting with baited breath for the release of *Gran Turismo* 4—and they weren't disappointed. It featured as many as 721 cars from 80 manufacturers and over 50 tracks, including some old GT favourites. Some notable tracks were the Suzuka circuit, Le Mans circuit de la Sarthe, and a variant of the German track Nurburgring which had a jaw-dropping 176 turns in just one lap!

But what really blew everyone away was the astounding graphics of the game. Although over-used in the gaming industry, the phrase 'hard to tell the difference' actually held true



Superb graphics and great gameplay made *Gran Turismo* 4 extremely popular

here. It was actually hard to tell the difference between the game and the real thing. Along with that, gamers got excellent game-play, which has been further improved post-GT3. Thus all things considered, this game is about as close to the perfect driving simulation as you can get!

Tom Clancy's *Splinter Cell: Chaos Theory*

The original *Splinter Cell* was a runaway success all over the world, with its absorbing storyline and superb gameplay. Fast forward to 2005, and its third incarnation, *Chaos Theory*, is still wooing gamers.



Splinter Cell: Chaos Theory will have you pulling all kinds of stunts, and using a million gadgets to avoid detection

The basic idea of the game remains the same. You play Sam Fisher, a spy working for a division of the NSA (National Security Agency) called the Third Echelon. This time around the action takes place in 2008. Electronic warfare has become the biggest threat in the world, and it's up to you to save it! As with the predecessors, the gameplay is based completely on stealth. You'll have to find innovative ways of sneaking around guards and cameras, make sure you don't make a racket while you're at it, and complete mission objectives as well. The game really doesn't encourage combat, you'll use firearms only as the last resort.

Chaos Theory features all-new weapons and gadgets, as well as new ways of sneaking around. Despite what appears to be slow and dull gameplay, the game keeps you on your toes at all times, and makes sure you're never bored enough to leave the game. A real gem of a game, *Chaos Theory* is a must-play for all gamers!

Xbox

Halo 2

The original *Halo* was a groundbreaking success in many ways. Not only did it revolutionise the FPS genre, it also boosted sales of the Xbox to such an extent that it came to be known as 'the game that sold the Xbox'. *Halo* put you in the boots of Master Chief, a futuristic soldier in a battle against an alien race called the Covenant. With its brilliant gameplay and amazing storyline, it became a smash hit for consoles as well as for the PC.

Released in 2004, *Halo 2* is the sequel. At the moment, it is an Xbox-only game (because Microsoft also happens to be the game's publisher). However, it is expected to be released for the PC sometime in 2006. Once again you're placed in the shoes of Master Chief. Without giving away any spoilers about the fantastic storyline, we can reveal that *Halo 2* involves taking control of a Covenant known as the Arbiter.



Master Chief in all his glory, taking on the covenant and sending them flying!

Halo 2 also comes with a whole new damage system. This time round, both health and shields regenerate. Furthermore, some attacks are designed to be lethal to your health, while others are destructive to your shields.

Halo 2 has been well received by its fans since release, and you can bet it's going to give you more of the same action once it's out for the PC!

Grand Theft Auto: San Andreas

GTA has always been a controversial game. It encourages you to engage in the kind of behaviour that would get you locked up for a very long time if you were to try it in real life! But as is often the case, the moral police's nightmare is the gamer's delight. *GTA* has been an extremely successful franchise, and this hold true even for its latest edition, *San Andreas* (SA).

GTA:SA puts you in the boots of one Carl Johnson, or CJ as he is called throughout the game. He was a resident of Los Santos, where he was a member of one of the local street gangs, 'The Grove Street Families', before he moved out. Now his mother's been murdered, and he's returned to Los Santos to attend her funeral. Seeing the entire neighbourhood in disarray prompts him to stay back.



GTA: San Andreas is about living in the 'hood', like a gangsta.

The beauty of *GTA:SA* lies in the open-ended gameplay. There are missions that need to be undertaken to complete the game, but the player has complete freedom to roam around the map and do what he pleases. In fact, this is absolutely necessary at times. If you want to regenerate health, for instance, you need to go to a restaurant and buy food. Or if you want to increase body muscles and reduce fat, you have to go to the gym. There are also many side-missions, like having girlfriends. That may sound like fun, but it's hard work to keep them all happy, just like in real life!

Of course, the fact remains that the game basically consists of extremely graphic language and anti-social activities such as drive-by shootings, theft, and even murder. It's therefore been rated Adult Only. But to the hardcore gamer, it translates to more fun!

Controversies notwithstanding, this is one heck of a game and a must-play for all (adult) gamers.

GameCube

Metroid Prime 2 Echoes

Metroid Prime is considered by many fans as the greatest game ever created. It was an amazing game that came virtually out of nowhere and caught gamers by surprise. It was faithful to the original 2-D Metroid Prime with its addictive gameplay. But at the same time it was like a breath of fresh air for the industry. Metroid Prime 2 Echoes is the sequel to this popular game.

MP2 places you in the boots of bounty hunter Samus Aran, a girl who is about as cool as they come. She wears a special suit that also allows her to morph into a sphere, known as the morphball. The gameplay



Samus Aran in all her glory, suited up and kicking bad-guy butt!

itself is very similar to the original MP. That means a similar control scheme, level design, morphball-based puzzles and so on. Even so, it is an extremely entertaining game that thrills and delights just as much as its predecessor, if not more. The brilliant gameplay and updated graphics make MP2 arguably the best game on the GameCube ever!

Luigi's Mansion

When *Super Mario Bros* was released by Nintendo, even they probably did not expect it to be such a phenomenal success. Ever since, it has spawned countless sequels, and ultimately the creation of the Mario universe. One of the characters in the Mario universe is Luigi, Mario's brother. In *Luigi's Mansion*, he appears all by himself in a game only for the second time ever. And boy, does he have an adventure!

The game starts with Luigi winning a mansion in a contest he doesn't even remember entering. And he's supposed to meet Mario inside it at midnight. The problem is that Mario is nowhere to be found. The only person that greets him is an old, rather mad scientist who tells him that the mansion is haunted. He proceeds to hand over a flashlight and a vacuum cleaner that sucks ghosts(!) to Luigi, and the adventure begins!

The gameplay is simple but extremely enjoyable. It's great fun to go exploring the mansion room by room and vacuuming the ghosts away. The puzzle-solving aspect of the game is not to be missed either. The game performs well on the graphics front as well with brilliant shadow and lighting effects. All in all, a title for all ages, and one not to be missed!



The comical Luigi and with his even more comical vacuum cleaner.

Top Games



Thus far, we've talked about how games began, dealt with the different genres in computer games, seen alternative gaming hardware (consoles), and games available for consoles. It's about time we mentioned the best games till date in each genre.

This chapter will look at the top games in each genre, and will tell you why we thought they are the best in their respective leagues. Of course, opinions will differ, and this is merely our opinion of what's been the best—there are hundreds of games that can match these in terms of entertainment, graphics, and addictiveness. Remember, we're not rating these games or placing them in any order. We're simply telling you about the top games in each genre—no more, no less!

Let's start with what are probably the most popular games out there, and perhaps the most competitive of genres: Action!

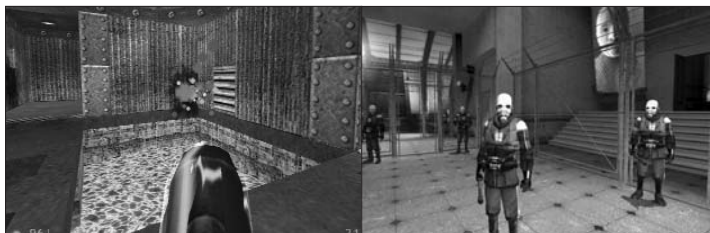
4.1 Action

As mentioned earlier, this genre of games mainly consists of First Person Shooter (FPS) games, and is a very competitive market.

Half Life And Half-Life 2

The reason we mention these games is because both were just so much fun to play.

When *Half-Life* was first released, it was obvious that it would take up a place in history. At a time when all FPS games were boringly unrealistic, *Half-Life* took us into a very believable world. You didn't just find a gun or ammo or a health pack floating in mid-air; instead, you had to break open crates with a crowbar to find ammo and health packs. You had to look for charging units to



Half-Life and *Half-Life 2* revitalised the genre of action games

charge your HEV (Hazardous Environment) suit, which would be logically placed somewhere near a hazardous environment. Aliens were scary, the human enemies were intelligent and the story was almost believable—provided you read sci-fi books.

For the time, *Half-Life* also had the best-looking graphics; after playing other games, it seemed like a gift from the heavens to all FPS fanatics.

Then when *Half-Life 2* was released, people were excited to say the least. It took some time coming, but *Half-Life 2* capitalised on the first part's strengths and came with further AI improvements, more interactivity with fellow humans and an even better look. The graphics were stunning, the physics realistic, and the story, much improved. The addition of a female character didn't hurt at all either!

Overall, both games were amazingly addictive and well worth the money. We must, however, add that nothing in any game, ever, has left us feeling as unfulfilled as the ending of *Half-Life 2*. We're not giving away the ending to those of you who haven't played it, but be prepared to be angry enough to smash your screen once you complete the game!

FarCry

If ever a game was made to be pretty, this is it. With the right hardware, this game can make you gasp at the beauty of the tropical paradise you're marooned on. With amazing lighting effects, tex-



FarCry has good graphics and amazing water effects

tures, and above all, realistic-looking water, this game is made for those who want to show off their graphics cards.

So is it all about stunning graphics then? No way! If ever a game was realistic and hard to play, this is it. You're stuck on an island after someone blew your boat away with a rocket launcher. You lost contact with the woman customer who was with you, and had chartered your boat. It turns out she's CIA, and you're stuck with hundreds of mercenaries and mutants to kill in order to survive. Though not the strongest of storylines, this is still enough for you to get addicted.

To begin with, the AI is terribly tough. The mercenaries are well trained, and can almost fool you into believing you're playing against a human. They work well together, they all hear your gunshot if you fire off a round, and co-ordinate an attack in the direction the shot came from. It doesn't take too many bullets to kill you, and a head shot kills an enemy immediately.

You have numerous tasks to complete before you can cross levels, and though they seem stupid later, they somehow always make sense when you're playing the game!

This was the first FPS we encountered where stealth was sometimes the only way out of a situation—try shooting your way out and you die!

The icing on the cake is the ability to commandeer vehicles and boats, and even a hang-glider. The weapons are great, especially the super-powered sniper rifle, which is so realistic it's thrilling. For example: if you're standing up looking through the rifle telescopic sight, your hands shake—resulting in a constantly-moving crosshair. However, if you lie down on the ground and take aim, the crosshair is steady as a rock, even on maximum zoom!

The physics is great, too. Even after you kill an enemy, you can continue shooting the body and watch it move—in accordance with all the laws of physics!

Overall, this remains one of the best FPS games made to date.

Doom 3

This game is scary—take our word for it! We played it at about two in the morning with 5.1 surround speakers and no lights in our test centre, and we should tell you that many a reviewer's heart skipped a beat every time they heard a sound behind them, or the soft, low-pitched growl of a lurking monster!

Then you play the game for another hour and all of a sudden it's not as scary, and it's not as enjoyable either!

Alas, *Doom 3* didn't make waves the way the first *Doom* did, and there's nothing new about the story or gameplay. Well, OK, the whole concept of picking up PDAs from already disintegrated fellow workers and gaining access codes to lockers and weapons cabinets does lend a little reality to the otherwise bland storyline. So why even mention it if it's that bad?

It's not bad! It's just that the game is repetitive. But what more than makes up for this are the graphics. We're yet to see more stunning shadow and texture details than in id software's *Doom 3*.



DOOM 3 is a game with realistic looking monsters—scary!

This is another game that's perfect eye candy when you're showing off your graphics card's capabilities.

Overall, this game was a disappointment only in terms of the storyline, and scores a perfect 10 in terms of graphics and great-looking monsters.

Halo 2

The much-awaited sequel to *Halo*, which was touted as the best sci-fi FPS ever, *Halo 2* certainly had a tough act to follow. Well, it made the grade. Microsoft, the game's creators, claimed to have had 15 lakh pre-orders for *Halo 2*, which is a lot for a game. And we should tell you—it lived up to most people's expectations.

Halo 2 used the same style of gameplay that earlier won *Halo* accolades, and this was good. The action was non-stop, the levels huge and pretty-looking (though boringly similar at times), and the multi-player support just got better and better.

Known for its great AI, the *Halo* series always had one thing going for it—re-playability! The vastness of maps also meant it could take up to three or four times at the game to discover everything there was to be discovered. The great sci-fi world you were part of meant that the game was as immersive as the *Star Wars* series in the '80s. The fact that your character, Master Chief, is not human just adds to this immersive nature, and also gives *Halo* and *Halo 2* the distinction of making you feel like you're part of a Hollywood blockbuster.



Halo 2 for Xbox

The weapons are great; the AI, of both friends and foes, make the game realistically tough; the graphics are awesome; and the cut-scenes are just terrible—compared to the rest of the game, that is. What always stood out were the vehicles in *Halo* and *Halo 2*. These are intricate to the story and are well-modelled, but mostly are just way too much fun to drive.

The game took the realistic route with weapons as well, not allowing you to carry more than two at a time, which is good for gameplay and tactics. There are times in the game when choosing the right weapon for the path ahead can mean the difference between success and being fragged by good AI.

This game was also supposedly the PlayStation killer, since it was only available for the Xbox. Whether this happened or not is debatable, but then again, we PC gamers don't really care about the bickering in the console market, now, do we?

Overall, both instalments of *Halo* are great fun, and should definitely be on your game shopping list.

Counter-Strike

This game is based on the *Half-Life* engine and became one of the most popular multiplayer games to date. There was also a single-player game released, which was called *Counter-Strike: Condition Zero*. *Counter-Strike* (CS) multiplayer is quite a simple concept: counter-terrorists fight terrorists in four simple game modes—rescue the hostages, defuse bombs, guard an area and guard a VIP. For those



Counter-Strike pits terrorists against counter-terrorists

playing terrorists, the roles are reversed, of course, so your aim would be to hold hostages, successfully set off bombs, escape from an area or assassinate the VIP.

It's as simple as it sounds—these game modes are all you'll ever need, coupled with the many different maps available. The game went far beyond being just another *Half-Life* mod, and has spawned a following of its own. It is, in fact, perhaps still the most widely played multiplayer game in India.

What makes this game so cool is the realism factor: when playing a game with a group of team mates, if you're gunned down, you don't automatically re-spawn at a predefined area like in most other multiplayer FPSes; instead, you just sit around and watch until all the terrorists or anti-terrorists are killed and the round is over. This makes for exciting gameplay as the value of your life is very obvious, and no-one wants to get killed first. This forces players to use a lot more stealth and strategy than in any other multiplayer game.

Since you play as a team, and not just for yourself, you have a chance of winning more money, and simultaneously better weapons as you keep winning rounds. This, however, can be a drawback if one team wins, say, four or five rounds in a row, as they are then put at a pretty unfair advantage in terms of firepower, and chances are the game's already lost to the other side.

The universal popularity of the game also means you don't have to have a LAN party just to play it, and you can always find freely-available servers and players at any time of day or night, provided you have a decent Internet connection. The game does require at least a 256 Kbps connection if you are to have any chance of fragging some of the more experienced players.

The success of this game spawned a single-player follow-up in 2004—*Counter Strike: Condition Zero*. This game was very much like the original CS, except you had no choice but to be the good guy (a

counter-terrorist). You play the head of a counter-terrorist squad, and have to lead your men through some pretty tough challenges. The enemy and your men are controlled by the game's exceptional AI. If you've played CS with some experienced players, you'll feel right at home playing with CS: *Condition Zero*'s bots. They act just like human players, even seemingly having a mind of their own at times—not following orders, taking risks and shortcuts, and even abandoning you to save their own life.

You have to play through six challenges and 18 maps to finish the game, but you have a few pre-requisites to complete. For example, you have challenges such as killing a terrorist with a knife (stealthily), and then surviving the remainder of the round—so you can't just charge a terrorist group and get a knife kill, die, and then claim to have completed the challenge. You have to make sure you live to see the end of the round!

These challenges can get complicated and tough at times, but then that's what makes the game replayable. Beginners will find themselves playing rounds again and again to try and complete these challenges, even at the easiest setting.

The multiplayer aspect of CS: *Condition Zero* is not really too different from the original CS to merit any sort of review. Overall, the games in the CS series are perhaps the best multiplayer games to date, and challengers better come up with something magnificent. The fact is, CS is such an old game that it runs on systems that cannot even install new-generation games, let alone play them. This makes CS an unbeatable force. According to Wikipedia, at any given point in time, there are about 85,000 people online on CS servers, and thanks to the game's low system requirements, more and more people are discovering CS every day.

If you own a copy of *Half-Life*, you can just download the CS mod and begin playing right away. We highly recommend you try this game if you haven't already!

Unreal Tournament 2004

This game was a follow-up to a bomb! The original *Unreal* game was not exactly the cat's whiskers, and as a result the developers, Epic games, had to come up with something good—and fast. While *Unreal* was mostly a single-player game with really bad multiplayer support, Epic focused its sights on making a great multiplayer game, and thus *Unreal Tournament* was born!

Unreal Tournament (UT) is considered the second-best multiplayer FPS, second only to *Counter-Strike*, though there are a lot of UT fans who might take offence to this. The latest instalment of *Unreal Tournament* is *UT 2004*, which is a very nice multiplayer game, to say the least!

The game has many multiplayer gameplay modes, including the now famous Assault and Onslaught modes. The newer Onslaught mode feature teams of up to 32 players on huge maps battling it out, trying to destroy the power grids of the opponents.

The game also includes vehicles, which players can use to speed up their way across the large maps. There are powerful tanks, aerial fighter crafts and a varied selection of weapons, including laser-guided missiles to combat these tanks and flying fighters. This means that just because you get your hands on a tank first doesn't mean it's curtains for the enemy.

With nearly a hundred maps to choose from, multiplayer FPS fans are sure to be spoilt rotten with entertainment when playing



UT 2004 has some amazing graphics and multiplayer gameplay

this game—though most maps are designed for capture-the-flag or deathmatch gameplay. Unlike most other multiplayer games, where the impatient get bored of the same maps, *UT 2004* seems to have something new for you almost every second day!

The wide range of vehicles available make the game a lot more interesting, but it's the scenery that's bound to snare your attention at first. The graphics are really good, and the physics is very realistic: for example, if you corner an enemy in a buggy and blow him to smithereens, be careful, because the buggy is blown skywards, and might just land on your head, squishing yourself and a few team mates to death—it happened to us!

The great-looking graphics and textures make the game true eye-candy, and do not overtly tax machines that just meet the minimum system requirements. This makes the game very playable on most of the gamer community's computers. The one thing that is required, however, due to the sheer amount of maps and textures, is hard drive space—a whopping 5.5 GB+ of space, to be precise!

This game is a must-try for all the frag-crazy gamers out there, and is one of the best multiplayer run-'n'-gun games available.

Quake III Arena / Quake 4

id software is mostly known for two game series: *Doom* and *Quake*. We've already spoken of *Doom 3*; we now take a look at the two most popular *Quake* games—*Quake III Arena* and *Quake 4*.

Quake III Arena was id software's attempt at making the perfect multiplayer FPS, deathmatch game. It succeeded!

Thus far, when it come to deathmatch and capture-the-flag game modes, the most popular game is perhaps *Quake III Arena* (Q3A). Though Q3A shipped with a single-player mode where you fought against bots, nothing beat playing it at a LAN party. In a true every-man-for-himself deathmatch game, nothing came



Quake III Arena has long been the multiplayer choice here at *Digit*

even close to Q3A, especially at *Digit*. The *Digit* Test Centre (with all the high-end rigs) has always been a gamer's paradise, and quite often you'll find a group of 10 or more of our employees there screaming and shouting as they play a quick Q3A death-match after successfully finishing up another *Digit* issue.

The reason for this attraction is simple: great graphics that are sustainable on now mid-range configurations, great weapons, and the ability to mod the way your player looks to the extremes!

The different power ups, such as mega health and Quad damage (four times the damage than usual) make this a truly great multiplayer experience. Great weapons such as the rail-gun (one-shot kill) and the rocket launcher or BFG (Big F***** Gun), and the different gameplay strategies adopted (run-'n'-gun or camping) by players are the reason this game is so loved by many. The sound effects are also great, and nothing in a game has ever sounded better (and brought more relief) than the sound of an off-target rocket whizzing by your head.



Quake 4 showcases some of the best graphics to date

Quake 4 (Q4), which was only recently released, uses the *Doom 3* engine to deliver perhaps the best graphics seen in a game yet! Q4 continues where the story of *Quake II* left off—mopping up what’s left after the destruction you caused in *Quake II*.

You play Matthew Kane, and are assigned to Rhino Squad. The game puts you on an alien planet and you are assigned tasks in succession. These tasks vary from destroying all enemies, protecting a fellow marine, leading a medic to a downed comrade, or just bypassing obstacles that are preventing your squad from advancing.

At least in *Quake 4* you have help from some good AI allies, and aren’t expected to destroy the alien race all by yourself. The game really showcases the *Doom 3* engine, and everything looks marvelous. There are a few sequences, such as when an unsuspecting marine is suddenly killed before your eyes by a horrific-looking alien, that take you back to the *Doom 3* scariness, but overall, it’s still pretty much a great-looking shoot ‘em up.

The multiplayer mode is pretty much Q3A with much, much better graphics. Apart from the breathtaking models and textures, there’s nothing new here.

A game that requires a really high-end system indeed, Q4 is better suited for those who want a multiplayer game to show off their dual-GPU gaming rigs. For sheer multiplayer fun, Q3A will suffice.

Serious Sam II

This is a follow up of the first game, *Serious Sam: The First Encounter* (SS:TFE). Back then, SS:TFE was something new. It had plenty of humour, no story whatsoever, no physics, and was blatantly absurd. The game developed fans by the hordes back then mainly because it was a novel idea. The game intended to make no sense at all, and did this with aplomb. There was no particular reason given as to why you were on an alien planet killing thousands of monsters, and the weapons were as deadly as they were funny.

Serious Sam II (SSII) does absolutely nothing new here. Yes, the game looks a lot better with great graphics—the backgrounds are breathtaking, but the enemies are as stupid and funnily designed as ever. Unlike *Doom* or *Quake*, where first sight of the aliens can send a chill down your spine, in SSII you're more likely to burst uncontrollably into peals of laughter!

The weapons are as hilarious as ever, including a parrot that carries a pretty deadly bomb, kamikaze style! The level design is somewhat monotonous, and the guns are bigger than ever. However, the arcade feel to the game means that your big guns can obliterate the enemy by the hundreds, but three seconds later their bodies (or whatever was left of them) vanish, leaving no trace of the carnage you just unleashed. This can be really unsatisfying.

The things that remain unchanged from the first game, such as the way you're attacked by charging bulls or headless kamikazes, along with jets that drop bombs and huge monsters that fire from a distance, are only so much fun. Once you realise that running backwards blowing everything that approaches your away is the key, you pretty much do that through the whole game.

SSII is a good laugh, and can entertain you for a day or two. Then it gets boring, and none of that breathtaking scenery can make up for silly bosses and easy-to-kill monsters. It's strictly a game for the die-hard *Serious Sam* fans. You also need good hardware to render the hundreds of enemies and the scenery. At least there's some physics incorporated into the game this time!



Serious Sam is anything but serious!

Prince Of Persia: Warrior Within

This is a third-person action game, unlike the first person games we've spoken of so far. *Prince Of Persia: Warrior Within* is the perfect example of how much a game can evolve—from the 2D arcade platformer *Prince Of Persia* to a great 3D third-person-view game with breathtaking effects, scenery and fighting moves.

This game was most famous for its “Free Form Fighting” technique, which brought an element of freshness to the gameplay. Instead of just attacking or defending, the Prince is capable of using both hands to fight off opponents. If the Prince has only a single weapon in his hand, he can use his free hand to throw, strangle or hold an enemy. Used in conjunction with his weapon, he can then quickly stab or slit a throat while holding an enemy. With two weapons, one in each hand, the Prince, obviously, loses his ability to hold or throw an enemy, but depending on the weapons he holds in each hand, he can use them to deadly effect—even chop an enemy in half!

All this depends on the combination of buttons used to control the attack, and the different types of special attacks available seem unlimited at times. This obviously makes the game a lot harder to handle on the PC platform. The graphics are as good as any we've seen in a third-person action game, and the sound is pretty good too. The game is a great buy for the Prince's fans, and although it's best if one buys and plays *Prince Of Persia: Sands Of Time* first before playing *Warrior Within*, it's not a requisite.



The Prince returns in *Warrior Within* to show off some cool killing techniques

4.2 Strategy

Games in this genre are all about planning, and are much slower-paced than those in the Action genre—but no less enthralling!

Age Of Empires III

Very recently released, the *Age Of Empires III* (AOE3) demo has been provided on the Digit DVD this month. *Age Of Empires*, the first in the series, was perhaps the game that defined the entire ‘Strategy’ genre of games. It was the first popular game to change the old, boring 2D look of strategy games and convert them into a 3D look, complete with 3D men, machines and maps.

Age Of Empires III does not change much in terms of gameplay, and this is a good thing. Why fix something that isn’t broken? The difference is that AOE3 takes place in a little more modern setting, and everyone starts as a European power, all battling for control over North and South America. Though you do not get the entertainment of pitting the Japanese against the Persians as you could in the earlier games, you still can have a lot of fun playing as the British and fighting off the French, Spaniards, Dutch, Russians, Portuguese, German or the Ottomans.

As is customary in the series, each civilisation has its own advantages and drawbacks, and who you choose to play as, dictates your strategy, just as much as anything else in the game. There’s a nice, long single-player campaign mode, which will give you hours and hours of exciting gameplay, with great replayability. The skir-



Age of Empires III brings some great graphics to RTS games

mish mode against computer-controlled civilisations can be as tough or as easy as you choose, and finally, the network and online mode offers tremendous entertainment.

The inbuilt scenario editor lets you create your own maps and campaigns, so even after you've finally finished off the single player campaigns, you can always make more of your own—and make them as easy or difficult as you like.

The game is a little simplified compared to older versions—you don't need to build storage structures next to your workforce that is gathering wood and minerals. This decreases the amount of detailed management required by a player, and lets you get right into the game's entertainment—attacking and defending!

Overall, the game isn't too different from the *Age Of Empires II* (*Age Of Kings*), which is both good and bad. The good part is that players have virtually no learning curve, and the bad part is that *AOE3* is the successor to one of the most popular strategy games of all time—a little disappointing in terms of innovation. Basically, we were perhaps expecting a little too much from *AOE3*!

Rise Of Nations

In 2003, a company called Big Huge Games rolled out a game called *Rise Of Nations* (RON). At first glance, it's easy to mistake RON for *Age Of Empires*, and that's what most people thought it was at first—some sort of expansion pack for *AOE*. The difference became apparent when you started playing the game!

Unlike in *AOE*, here you start with a city and a national border. What's that, you ask? Exactly! See the difference? Basically, each city you build is isolated from another city, and you can only build city structures within each city's clearly demarcated national border. There are also limits to the number of buildings you can build within each city limits. This forces players to build quickly and then expand to another city.

Each city then functions as an individual entity, and this means your empire consists of many individual cities. This also means that you have to defend cities as individuals, and your foes will attack one city at a time—or many foes will attack many cities at once.

RON also includes technological research that defines how fast you can get to modern-day weaponry and technology, all housed under one building. So there's no frantic clicking on different buildings to look for missed threads in your research, which then hold you back from advancing to the next technological age. For most AOE-type strategy players, this feature was a gift from the heavens!

Like *Age of Empires*, RON features eight ages that you progress through: classical, mediaeval, gunpowder, enlightenment, industrial, modern, and information. So you go from a wandering nomadic tribe to a civilisation with the power to blow your opponents away with nukes!

RON also has a single-player mode, where you start as one country and the computer controls all the others. Your task is to take over the world, one country at a time! This task switches between turn-based strategy and real-time strategy, depending on whether you're invading or being invaded—or just researching technologies. In order to take over a country you have to complete a specified task, which could be as simple as obliterating the enemy or withstanding half an hour of a barbarian attack, and so on.



Rise Of Nations takes you from a nomad to a nuclear superpower

The game is certainly different from most of the other real-time strategy games in its class, and we dare say it does its job of entertaining us with hours of fascinating gameplay a little better than most!

Homeworld / Homeworld 2

You find a spaceship buried deep beneath the sands of your planet. Soon you discover your entire civilisation was started as a result of an alien race populating this planet of yours, centuries ago. This fuels your civilisation's desire to find out where they actually came from, to find their Homeworld! A huge mothership is built, capable of hyperspace travel. Unfortunately, as soon as you set off, you meet a fleet of hostile aliens, who retrace your path and destroy your planet. This means the only home you have left is the ship you're in, and the only place you have to look forward to is your Homeworld!

Yes, this story sounds like the perfect beginning to a Hollywood blockbuster, but strangely, no such movie has been made yet. You'll have to make do with the game for now, but thanks to a good 3D engine, you'll perhaps never feel the need for a movie. *Homeworld* was first released in 2000, and was perhaps the first RTS game to successfully feature a space-age civilisation. The 3D graphics were great, and the gameplay, entertaining. This brought about a following of its own, and many a trekkie was drawn to its sci-fi rooted story.

Though the game works like any other real-time strategy—gathering raw material, researching technology and building more ships—



More screens from *Rise of Nations*

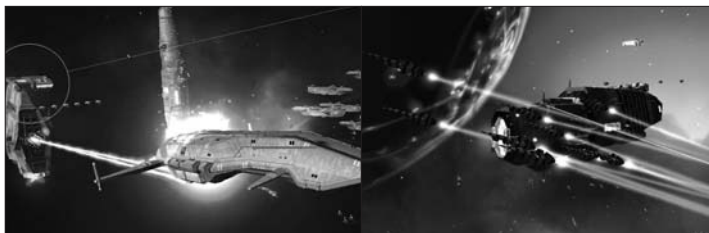
the biggest difference is in terms of movement. Since you're in space, you can move three-dimensionally! This can get confusing at first, but if you complete the tutorial at the beginning instead of skipping past it like we do with most games, you will find that it's really easy!

The graphics are amazing, not in the *Doom 3*-realism style, but in the sense that every little detail is carefully shown. You can even zoom into a ship and see every gun fire and then follow it through with a battle, Hollywood style.

In LAN or Internet multiplayer mode, up to eight players can play simultaneously, which is more than enough for a game like this.

In *Homeworld 2*, the gameplay is pretty much the same as in the first part, with just a few minor improvements. The graphics get even better, and the music and audio commentary is really fitting. The battles are epic and look like something akin to battles in the *Star Wars* saga, but yet, even after all the Hollywood space movies that have been released, every ship's design is refreshingly unique and alien.

Both *Homeworld* and *Homeworld 2* are must-try games for those with a space fetish. And when it comes to space RTS games, this is where the buck stops!



Homeworld takes RTS games to galaxies beyond

Warcraft III: Reign Of Chaos

If neither space nor mythology gets you going, and you're more inclined towards fantasy and *Lord of the Rings*-style magical beings, fantasy real-time strategy games are for you. If you like this sort of game, then *Warcraft*, *Starcraft* and *Warcraft III* should be familiar names.

Warcraft III is the follow-up to the older *Warcraft* and *Starcraft* series, and in this version you can choose to play as one of four factions—The human alliance: elves, dwarves and humans; The Orcs: Orcs, Trolls and Tauren; The undead: evil human wizards and their zombie creations; or the elf sentinels, which is a race of fighter druids.

The gameplay is pretty much standard RTS—gather wood and gold, build structures, gather an army and beat your enemies into oblivion. The difference here is that armies are much smaller and manageable, so you have a small bunch of more powerful individuals, and even characters depicted as heroes, who gain power along with experience.

This is typical of role playing games, and we were surprised to find this aspect—of gaining experience as you go along—in an RTS. The result of this mix-and-match is sort of a game that gives you the best of both worlds. The characters are pretty much standard fantasy features, but they're depicted well enough to not make you mutter, “Oh no, enough of the elves/dwarves/orcs/trolls already!”



Warcraft III is the perfect game for those crazy about fantasy games

The controls are a lot better than in most other RTS games, with attention being paid to detail and automation of tasks. Even when a unit completes a task you get a pop-up informing you it's not earning its keep! This is in stark contrast to, say, *Age of Empires*, where peasants just stand around doing nothing after a task you set is completed. This means you spend less time looking about your map trying to look for units goofing off, and spend more time in actual gameplay.

Apart from these minor differences between *Warcraft III* and most other RTS games, the rest is pretty standard. The replayability is quite good, since you have three more races to play as. This game is a must-have for all fantasy game fans.

4.3 Simulation

Let's take a look at some games that can keep those of us with reality fetishes entertained.

SimCity / The Sims

There's something appealing about being able to build and manage an entire city. Games in this genre are generally referred to as God games, and with good reason. After all, you do play a higher power in the functioning of your city.

The first *SimCity* was released in 1989, at a time when most of us still hadn't even discovered computers, let alone computer games. It was immensely popular in the US back then amongst the small group of people who owned PCs (in 1989? Was that like 14 copies sold?). Jokes apart, this is the game that started it all, and although you'd laugh if you saw the look of the game, let's not forget when it was made.

There were several successors to it: *SimCity 2000*, *SimCity 3000*, *SimCity 4* and *SimCity 4 Rush hour*. All these games had you build and maintain a city and keep your populace happy.

The *SimCity* revolution gave way to a new type of game, *The Sims*—that let you control people instead. When you could control intricate lives of people, say, decide whether they should work or not, who wanted to control a city? True, some still did, which is why *SimCity* releases kept coming till 2003, but a lot of gamers switched over to *The Sims* instead.



Games like *The Sims* let you play God

You start off with a family, and can either choose an average, preset family, or build your own. You decide on their natures (neat, active, playful, nice or outgoing), and get started. Each character has six skills he or she can develop—creativity, logic, body, charisma, cooking and mechanical. Everything you do from the start of the game decides what skill is built up.

First up, you have to look for jobs for your “Sims”, and this is achieved via placement ads or via the Internet. Once you have a steady stream of income, you can begin to buy items, and every item you purchase helps develop your Sims character—a new stove will help the Sims cook better meals, and the result would be happier Sims!

Each Sim has some very basic needs—comfort, hygiene, hunger, room, social, fun, energy, and bladder (yes, even a Sim needs to get bathroom breaks). You need to make sure that each Sim’s needs are satisfied, or else you’re likely to end up with a big mess on the floor if you ignore, say, bladder needs, or a dead Sim if you forget to feed one. Lack of fulfilment of the other needs ends you up with depressed Sims, which may stop responding or listening to your commands. Overall, you need to make sure all your Sims are always happy and content.

To fulfil the need for space, you can rebuild and modify your house to provide more space. This is done easily through the interface and is generally a good idea, as more space equals happier Sims and more room to place the stuff you buy for them. Everything a Sim does is very cutely animated, and you can see everything that happens—from a Sim cooking, watching TV or interacting with other Sims.

The Sims 2 introduced a few more parameters into the gameplay, such as memories, where what happens now will mildly affect a Sim’s growth—such as the death of a loved one! *The Sims 2* also features the ability to build your own neighbourhood, like in *SimCity*, and you can customise everything surrounding your house.

The house itself can either be a cottage or a huge, four-floor apartment. The rest of the gameplay is pretty much the same: all you have to do is make sure all the Sims are happy and steer clear of their “fears”. Yes, each Sim has his or her share of fears, which could be as simple as getting fired from their job!

If you’re into playing God, or even if you’re into playing the devil and sadistically want to make people suffer throughout their miserable lives, you will love this game!

Microsoft Flight Simulator

This series was designed for all the nerds who wanted to be pilots but suffered from myopia! Seriously though, this game took flying to a different level altogether, and brought about an addictive kind of reality.

Most teenage boys dream of piloting fighter jets or even commercial airliners, and this game gave them the chance to do so right from within their rooms. *Flight Sim* was always about details, and everything from the documentation to the look and feel of a cockpit are painstakingly accurate. A lot of real-life pilots, too, found themselves using this game for a little practice in manoeuvring: with loads of different aircraft models at your disposal, and the absolutely realistic controls, this was the closest one could get to flying without actually doing so.

Sequels introduced better graphics and more recent aircraft, and the last instalment, *Flight Simulator 2004: A Century of Flight*



Flight Simulator lets you get all the flying experience without any of the risks

took a look at aviation across the century from the first airplane to the jumbo jets of today.

If you want to save a few bucks on flight lessons, and want to get a grasp of the basics before you actually sign up for flight school, this is a game you should buy. Even if you have nothing more than a mere interest in flying, and don't particularly want to do so in real life, this series is as close as you can get to the real thing.

4.4 Arcade

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Arcade games are the type of games most of us play, gamer or not, and are generally not very system heavy. Here we'll look at some of the oldest games that have inspired the whole genre.

Super Mario

This is the game that defined the arcade genre for most of us Indians. It was back in 1985 when we first got a glimpse of this game, mainly in video game arcades that popped up all over India at around the same time. How many of you remember paying a rupee and playing *Super Mario Brothers* and *Contra* at one of these parlours?

The game was a 2D platform scroller, and featured eight worlds of four levels each. The object of the game was to get the princess back from the evil dragon "Bowser" that had kidnapped her. This game still holds the title of the highest-selling game in



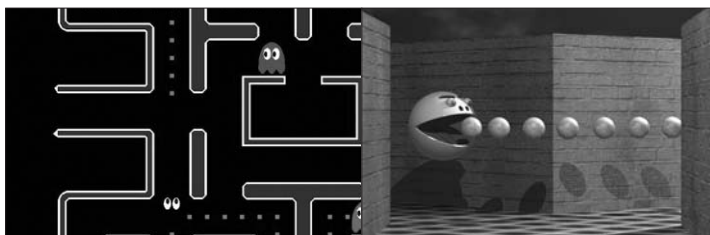
Super Mario Brothers single-handedly revitalised the gaming industry

the world in terms of numbers, and it's very doubtful if any game even in the distant future will be able to match its sales of over 40 million copies.

Another feather in this title's cap is the fact that it single-handedly revitalised the ailing gaming industry after the decline of the Atari's popularity in the mid '80s. This is reason enough to try this game out (if you're not one of the 40 million plus people who have played it for sure), and experience the phenomenon that is Mario! Warning: this game is more addictive than drugs, and can cause loss of productivity, despite the fact that it is dated and simple.

Pac-Man

Pac-Man is an arcade game that was originally developed by Namco as *PUCK MAN* in 1980. The idea was born from a pizza missing one



Pac-Man: Then and now

slice. The game needs no introductions or reviews, and you can read up on it at <http://en.wikipedia.org/wiki/Pacman/>.

1942

This game was the first popular top-down aerial shooter, and was developed by Capcom in 1984. It featured 32 levels of aerial battle, where you manned a biplane that travelled across various ground scenery. The object of the game was quite simple: to shoot down as many enemy fighters and bombers as possible while collecting power-ups. These power-ups gave you better fire-power. If you got stuck in an un-winnables position, you had the



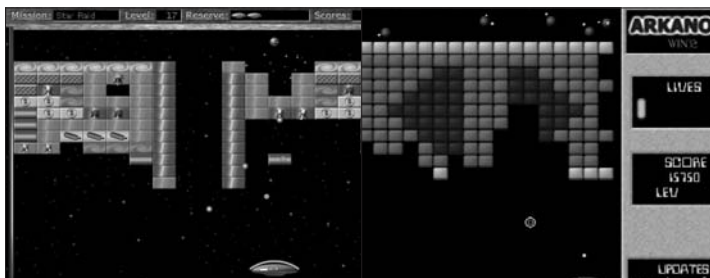
1942—the first popular aeroplane arcade game

ability to do a roll which took you above the action and let you move out of danger.

Breakout / Arkanoid

Super Breakout was first released in 1978, and was made for the Atari 2600. Later, in 1986, the game was given a story and then re-released as *Arkanoid* for the NES platform.

The objective was simple: using a slider, prevent the bouncing ball from falling, and break all the different coloured tiles. Certain special tiles had power-ups and power-downs as well. These power-ups and downs fell when a particular tile was broken, and you had to catch it with the slider, while not forgetting to keep the ball bouncing. There were also weird looking aliens that would appear, who could be destroyed by hitting them with the ball. This game was really popular, and has seen many remakes.



There are thousands of *Breakout* or *Arkanoid* clones available for free download

4.5 MMORPG

Runescape

Runescape is an MMORPG (Massively Multiplayer Online Role-Playing Game) that requires a comparatively low hardware rig to run on. The controls are all mouse-based, and are as simple as left-click to go to an area and right-click to get options for an item. This type of control is easy, but can be quite boring.



Not the best graphics around, but at least *Runescape* plays on almost any PC

The sound is average, to be honest, and it can get irritating. The lack of player choices mean that many people look almost identical, and this can be confusing. The map, however is huge, and exploring it all can take days. The reason why this game caught on is probably because it's free. It's a popular game, but by no means is it one of the best RPGs out there.

EverQuest

This game spawned an entire community of its own, with thousands of players and supporting sites. It has great graphics and sound, and has a completely fantastic theme. The backgrounds



EverQuest 2 has great graphics for an MMORPG

and player models are beautifully rendered, and certain areas of the maps are extremely colourful. There is a detailed quality look to the game that is normally seen more in action FPS games than in MMORPGs.

The game is targeted at men, and the ample bosoms for all female characters is proof enough. Despite the high-detail graphics, the game plays well even over slower Net connections, and this was perhaps the major reason the game became so popular.

You can choose to play as either a dwarf, human, dark elf, necromancer or troll. As with all RPGs, you need to complete a few missions and gain experience points to make you better equipped to handle the world you're thrust into. As you pass levels, you get stronger and more experienced, and even after a couple of months of playing, you'll still be able to learn a few things and buy better weapons.

The game is tough at first, but if you make the right friends, you can last a lot longer. The game needs co-operative play in order to get anywhere, and if you don't form your own little clan, you'll soon meet a group of monsters that don't like the look of you and will crush you. Though you will spawn again, it's very irritating to have to find your own body and reclaim all your belongings from it. You also lose experience each time you perish.

Final Fantasy XI

This game has wonderful graphics, but is simply not playable on slower connections. Instead of races, *Final Fantasy* uses "jobs" to distinguish between player types—warrior, black or white mage, monk, and so on.

The game is typical MMORPG, and you need to gain experience and skills in your chosen field by playing more and more. In order to survive here you need to form groups, just as in most MMORPGs. The same rule of patience when playing MMORPGs applies here as well: you'll no doubt have a very rocky start and die often before



You better have a good Internet connection to be able to play *Final Fantasy XI*

you get the hang of the game and try and get some group of higher-level players offer you protection. Overall, *Final Fantasy XI* is merely another option in the heap of MMORPGs.

World Of Warcraft

If the previous game was just another option, *World of Warcraft* (WoW) is the leader in the world of MMORPGs. It is considered to be the best MMORPG by far, and has held this title since its release in late 2004.

Most of the gameplay is exactly like other games in this genre: attacking monsters to gain experience, exploring the terrain alone or with a group, using your social skills to get a group to accept you, and so on. The major difference here is the way in which battles are done. The battles are much faster-paced than in any other game, and the graphics and sound effects add to the whole feel of playing a good game. Recovery times after fights are greatly reduced, which means that the whole game has a much faster, action-packed feel. This helped WoW gain a lot of its popularity.



WoW: Some screenshots of one of the most popular MMORPGs around

There are thousands of quests available in the game, but the developers were intelligent enough to learn from previous games' mistakes, and only show you the ones you're capable of completing according to your current skill level. This, again, helps save a lot of wasted time, and improves gameplay.

Another major difference worth noting is that *WoW* does not penalise you when you die, at least not in terms of experience and skills. The only penalty is a weakened state when you resurrect, and some slight damage to your weapons—which can easily be repaired for a small fee.



More screens from *World of Warcraft*

With loads of player types and player classes available to choose from, the game isn't monotonous. There's also no real difference between the different player types, so you're not likely to regret choosing the type you did. The overall look of the game hints at inspiration from anime comics, and as a result, the game has a fresh and colourful look.

The music and sounds are what you'd expect from a professionally-developed game, and they only add to the entertainment. The attention to every last detail—whether it's the sound that chimes when a friend comes online, or the tiny bird flying about high in the sky—makes *WoW* the most recommended MMORPG till date!

Gaming Resources



While it is difficult to put down all the resources, online and offline, that are available to gamers within this chapter, we have touched upon some major resources that would be useful to beginners and pros alike. And no gamer can afford to miss our detailed review of the top free games available today!

5.1 Where To Download Games

After reading about the innumerable genres of games and the other nitty-gritties of gaming, let's now try to locate these exciting games online.

In this section, we show you the various places from where you can download games, read reviews about the latest games from experts and enthusiasts and also learn about upcoming games. Although this list is humongous, we can pick only a few select sites. But, that's not all. Explore the Web and see which site appeals to you best.

1. www.3Dgamers.com
2. www.Gamershell.com
3. www.worthplaying.com
4. www.gamespot.com
5. www.kikizo.com



3Dgamers.com home page—worth bookmarking for the true-blue gamer!

All aforementioned sites offer a variety of games for download. Apart from the genre, you can also choose different platforms on which you would like to play the games, such as, Xbox 360, PS3 (soon), PS2, Revolution, Gamecube, and also, the desktop computer. And surprise, there are also games for your handhelds! Kikizo.com is one of the few sites to offer high definition videos for downloads.

Apart from consoles, GamersHell.com offers the option of downloading games sorted by genre. Beginners may find this helpful. Users can check more games within the category... you never know which one will appeal to you!

Among these sites, Worthplaying.com is long-drawn on the downloading front. For instance, when you click the download tab, it takes you to a different site—www.worthdownloading.com. Although slightly different than other sites, its not new. Some sites also redirect you to Download.com because it simply helps them reduce their server load!

There is list of the 10 latest files, 10 latest demos, 10 latest trailers, 10 latest patches and Top 10 downloads! Whew! You can download the games from whichever sub-heads you choose. It also lets you choose a mirror site of your choice in case the download doesn't start immediately.

Gamespot.com gains points just for the simple interface that it has to offer for downloading; something synonymous with all CNET sites.

5.2 Finding Reviews And Other Data Online

Avid gamers would like to have all the games that hit the market. They cannot possibly indulge in this fantasy, except for those loaded with moneybags! But a gamer's gotta do, what a gamer's gotta do! So what can a gamer do? Read a review of the different games available and then decide the one you'd like to 'invest' in. Let's say, you are interested in the latest version of *Resident Evil*, online reviews will help you make a buying decision.

The sites we mentioned earlier also have decent game reviews. You may even take a look at the sites given below:

www.GameRankings.com

Besides reviews, this site also offers a lot of statistics. These include user ratings, the Web site's personal scores, grades such as A, B+, etc., comparative scores from other sites and more. If your buying decision is influenced by majority opinion, ratings and so on, you should surely visit this site. The effort taken by GameRanking to put up the statistics is commendable.

www.Metacritic.com

Another offering from the CNET stable, Metacritic is a comprehensive review site which also offers film and music reviews, apart from game reviews. Gamers can scout through reviews on various platforms and games.

The more industrious gamer would like to compare the reviews on GameSpot with those available on Metacritic. GameSpot's certainly better as it provides a detailed review, as opposed to the sketchy write-ups on Metacritic.



CNET's Metacritic.com talks about games and more

www.gamesradar.com

Some of the reviews here discussed only the good features of the games. Nonetheless, the reviews are detailed and also elaborate on graphics, sound quality, character description and more. Like Gamespot.com and WorthPlaying.com, Gamesradar.com also has reviews across various platforms.

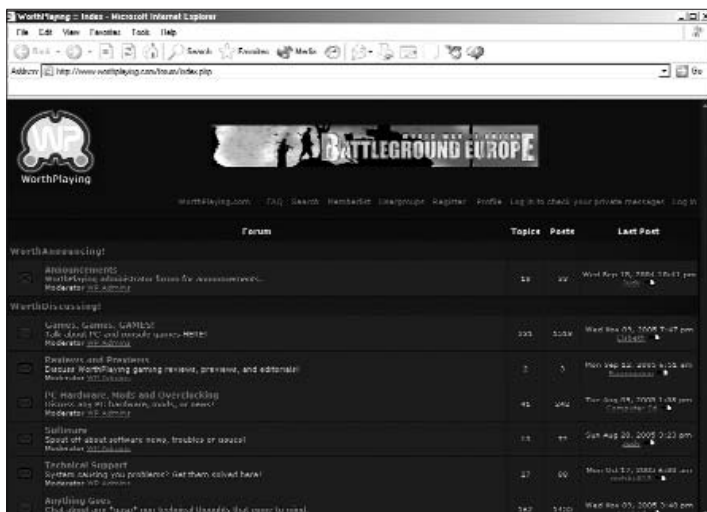
Although the list is exhaustive, we have given you an introduction to some of the must-visit Web sites for gaming. Now, you know what you should look for before downloading games. As with anything on the Web, the sky is the limit!

Online Features

Apart from reviews, some Web sites such as www.penny-arcade.com, www.modernevil.com, www.ctrlaltdel-online.com etc. feature gaming comics. These sites have their own forums, reviews and gaming merchandise. What makes them exclusive is their comic collection. These comics give you a humorous insight on gaming. Some of the comic strips include spoofs on well-known games.



5.3 Gaming Forums



The forum page of Worthplaying.com

Gaming is popular culture, and its cult followers are increasing with each passing day. This has escalated sales of games leading to the swift growth of the gaming industry worldwide. An important outcome of this activity has been the creation of gaming forums. Any gamer worth his salt, must have visited at least one forum!

What are Gaming Forums?

Gaming Forums are inherently Web applications that allow people to start threads (of communication) and reply to threads posted by other individuals. In other words, when one posts a message that's visible to all, another user can post a reply, which will also be visible to all. Thus, a discussion will take shape without all users having to be online simultaneously. Threads in a forum can either be flat, where the posts are listed in a chronological order, or threaded in such a way that each post is made in reply to the parent post.

Forums are also commonly referred to as Web forums, message boards, discussion boards or groups. Gaming forums provide community discussion or bulletin boards intended for computer and video gamers. They involve either general game information or are restricted to a particular game. Multiple forums are containers for threads started by the community.

Forums can be categorised as those that permit visitors to post anonymously and those which require a registered username to post. For username-based forums, visitors register using a username and a password, and perhaps an e-mail address for confirmation purposes. Here, members can customise how their posts are displayed to others (involving user profiles and signatures) and also how the forum appears (using themes). Anonymous forums offer full anonymity but no registration. A forum administrator usually has the ability to edit, delete, move or modify any thread on the forum.

Mushrooming of gaming forums is now common phenomenon. These forums provide a channel to post views on gaming and other related news and trivia. You can also comment on other posts, ask for help, preview and discuss upcoming games, share tips and tricks and locate cheat codes or walkthroughs. Interaction with the moderators and other experts helps in securing first-hand knowledge of the different aspects of gaming.

- ^m CNET has several console or video game forums commonly known as GameSpot. Forums on gaming using Microsoft Xbox and Xbox 360, Sony PlayStation 2 and Sony PSP and Nintenedo Game Boy and Nintenedo DS can be found here.
- ^m Mostly catering to the *Counter-Strike* gaming scene, NetSpeed Gamezone is another popular spot with more than 400 members. You can discuss gameplay and strategy and also avail technical support.
- ^m EA Forums of EA Sports is also a favourite among gamers.
- ^m SKOAR!, the gaming magazine also maintains several forums, with over 650 members that may capture your interest. Along with forums covering single player and multi-player PC, arcade,

console and Internet games, it also features a forum on selling game-related articles like CDs and computer magazines. The URL is <http://skoar.com/forums>.

5.4 Offline Resources



Home page of the popular gaming magazine in India—SKOAR!

Unlike gaming forums and Web sites that require access to a computer, gaming magazines make for a valuable offline resource for gamers. These magazines deal with computer games, video games, console games and also offer demo CDs and/or DVDs. Some recognised video game magazines include *Electronic Gaming Monthly*, *Edge*, *GamePro*, *Nintendo Power*, *Tips & Tricks*, *Game Informer*, *Famitsu*, and closer home, we have *Skoar!* These magazines provide the latest game reviews, news, previews, codes, cheats, contests, guides, Q&As, FAQs, screenshots, release dates and more. Take the time to flip through a couple of gaming magazines before subscribing.

Gaming forums and magazines are designed to build a healthy cyber culture and inform users and readers about the latest gaming meets held worldwide.

5.5 The Best Free Games Available Today

Gaming has come a long way from Solitaire to giant graphic card killers such as *DOOM 3* and *F.E.A.R.* It's a multi-billion dollar industry that's growing faster each day.

Since most users do not have the requisite hardware needed for the latest generation of games, thousands of smaller games, which are addictive, and will run on almost any PC have popped up. Some are totally free, others are online Flash-based games, and even more are adware supported or time-limited. Gaming has taken over our cell phones, and almost all mobile phones available today support the Java platform, just so you can load games!

This section, deals with only freeware Windows-based games, and we have given the best we could find in each category. While the games reviewed here are not the only ones available; instead, think of them as our pick of the lot. Since tastes vary, you may have some other ideas about what the best freeware games are, and we'd love to hear your views, so write in and let us know.

We used the following system configuration to test all the freeware games:

AMD Athlon FX-53
1 GB DDR 3200 RAM
nVidia 6800 Dual-GPU graphics card
80 GB SATA hard drive

Overkill? You bet! Actually, this was the only system free at that moment in the Test Centre, not that the reviewers were complaining or anything!

5.5.1 Arcade

Perhaps the most popular genre of games, arcade games are the ones that keep us entertained when taking a break at work, or even at home. These games are generally quite simple to play, but are very, very addictive. Today, even in this genre, not all games are tiny in file size, and some even require 3D capable graphic cards.

Remember, all these games have been provided to you on the November 2005 *Digit* DVD, so there's no hunting or downloading required. Let's take a look at some of the popular arcade games that people are playing.

Soldat

Kill Or Be Killed

This is a game made by just one person—Michal Marcinkowski—and has caught on like wild fire. It's basically just a shoot 'em up, with decent graphics, and absolutely no story-line—just the way we like our violent games! The aim is to survive for as long as possible and kill as many as you can—*Quake Deathmatch* style. *Soldat* is the side-view type and can best be described as a “*Worms* meets *Quake 2*” game!

You can choose to play in multi-player mode, by joining an Internet server or playing over the LAN, or in a single-player mode against bots. The action is as fast-paced as it can get, and the weapons are good. You can fly, using your Jet Pack, and even go prone if using the sniper gun. There's tons of blood and gore for those who love to see opponents go ‘splat’ on the tarmac! The many variations in the maps and game modes will offer you something new every time you play!

Game Modes Include:

Deathmatch:

Just loads of players all trying to get the highest kill-rate and outlast each other.

Pointmatch: Similar to Deathmatch, but points are awarded for how many players you kill in a row.

Rambomatch: Players race to get Rambo's bow that gives you amazing firepower. The rest have to try and kill the player with the bow, because only that player can get points for kills.

Teammatch: A Deathmatch that pitches two to four teams against each other.

Capture the flag: Quake-style gameplay, where teams have to steal the other's flag and take it back to their own flag in order to get points.

Infiltration: Exactly the same as capture the flag, but you respawn in enemy territory if you die.

Hold the flag: There's just one flag here, and the team that hold's it for the longest wins.



Soldat—a game made by just one person? Not bad!

Your arsenal of weapons include:

Desert Eagles: An automatic handgun; it fires slowly, but is very effective

HK MP5: Fast firing; short range

AK-74: No, that's not a typo, it is 74; medium-firing speed

Steyr AUG: Fires very fast

Spas-12: Shotgun; good for close range

Ruger-77: Very fast and accurate

M79: Grenade-launcher

Barret M82A1: Sniper rifle

M249 (FN Minimi): Machinegun; good at distances

XM214 Minigun: Takes a while to warm up, but can turn a map into a cemetery

Rambo's Bow: Just like in the movie; lethal and silent

Flamethrower: Get the opposition 'hot under the collar', 'set the world on fire'; choose your cliché

Overall, this game has everyone in *Digit's* Test Centre addicted, and singing its praises. It's a must-play, and it's on last month's DVD.

Tux Racer

Race Your Favourite Linux Hero!

An arcade racing game by Sunspire Studios, Tux Racer, is one of the cutest games you'll ever see. A hit with kids between the ages of 10 and 80, this game has one simple goal: race a flying penguin

(the Linux kind), through a ski course and have him collect fish while you race. Each level has a minimum requirement: finish the race in an acceptable time (basically just to ensure that you actually race) and collect a minimum amount of herring (the fish you're supposed to fly through, over or even under to collect).

While this may sound simple, it's not as easy as it looks. We had many *Digit* team members satisfied with just playing the first level over and over again. However, the more adventurous of us competed against each other, and compared times and perfect herring-collection records!

The game is pretty fast-paced (as any racing game should be) and has a lot of levels to play through. Levels are unlocked as you complete races successfully and then you can unlock more championship races in different places. So, if you're not improving your penguin racing skills with every race, it's going to be a while before you see anything but the first race level.

This game looks good due to its decent graphics, and is something you aren't likely to get tired of... and let's not forget how addictive it can be! Of course, there is one drawback: the music!

While it's not cacophony in the background, the developers could have at least added a couple of different tunes into the score—just to break the monotony. The tune is sweet enough to kill you from diabetes after just an hour of playing the game. Our suggestion? Turn the sound off; you don't need it in this game anyway!

There are many free games involving Linux mascots, but we like this one since it's loads of fun and unlike others, doesn't try and drill subliminal messages into your head that say, "Huge software corporations in the US are evil!"

Frozen Bubble

Bubble Trouble

If you're familiar with PopCap's arcade games, you'll immediately recognise this as a Dynamite clone—though it's hard to decide who copied who!

The gameplay is simple, you get different coloured bubbles to shoot up at a formation of other bubbles. The aim is to clear away all the bubbles by making formations of three or more bubbles, directly touching each other. So if there's a cluster of two or more same coloured bubbles on the ceiling, and you hit it with a bubble of the same colour, they all drop. You repeat this until the ceiling is cleared.

To make things harder, the ceiling keeps dropping at regular intervals (depending on the amount of turns played), so you have to use a little strategy and thinking to drop all the bubbles as fast



A very addictive game, *Frozen Bubble* is free and will keep you entertained for hours

as possible in a minimum amount of turns.

Sounds silly? Well, to be honest, there's not much to the game, but it's more addictive than nicotine. You have to try it to believe it, but don't say we didn't warn you—this game can almost single-handedly cut an entire office's productivity in half! We recommend that you play this at home, or at least make sure to show it to your bosses so that they are too busy playing it themselves to chide you for doing the same!

5.5.2 Simulation

A lot of people avoid games that are not ‘believable’. If you think that there’s no fun in playing a game that lets you race a car just by pressing the ‘up’ arrow key, or fly a plane using only three buttons, then these games are for you. When it comes to reality (or at least realistic or ‘believable’) games, simulators is where the buck stops.

Simulation games are made to feel real, and not just anyone can install a flight-simulator and start flying jets! In fact, some people even refuse to call these games simulation games

The most popular simulations have always been the flight-simulator variety, perhaps courtesy Microsoft’s Flight Simulator series. If Microsoft makes something to sell, chances are that an Open Source group developing something similar will pop up sooner or later. And it holds true here as well...

FlightGear

Flights Of Fancy

For all those who want to experience the reality of a flight-simulator, but are not willing to ‘pay’ to do so, *FlightGear* is perhaps the only option you have. Having said that, it’s not like this simulator



Who says you need to pay for a flight simulator? Try *FlightGear*

is second-best in a race of two! *FlightGear* is a comprehensive simulator that includes aircrafts that date back to the Wright brothers, as well as the latest jets.

The cockpits are very realistic, and the controls are standard. The 3D is well detailed, and when you run the game for the first time you will be surprised—for long, Open Source has been a synonym for amazingly functional software that aren't as pretty as their paid counterparts; but not this time!

As it should be with every simulator, *FlightGear* lets you customise everything with hundreds of different options: from the type of plane, the country, the starting airport, your entire flight plans, and even the time of flight.

Since *FlightGear* is Open Source software, it is not operating system specific, and can be installed on a Windows, Linux and even a Mac-based computer. The selection of scenery, or countries, is vast, and you will need to download the detailed scenery for the sector in which you wish to fly. On their Web site, *FlightGear* has broken up the entire map of the Earth into a grid of 36 x 18 equal sized segments, and you can download the scenery data for any particular segment by simply clicking on it.

Digit provided *FlightGear* and the entire scenery data for India in its October 2005 DVD, and you should look there for the installer. Those who don't have that issue, or want data for more locations, visit www.flightgear.org. Be warned; these downloads can be quite considerable in size. On an average, scenery data for each grid segment is anywhere from 30 MB to 90 MB in size. The download size for newer airplane models is small though—an average of 1 MB!

Overall, with great features such as autopilot, navigation assistance and an exhaustive aircraft list, *FlightGear* is a must-have for simulator geeks. Visit www.flightgear.org to find some great tutorials and hints for *FlightGear*.

LinCity

Playing God

Yes, it's quite obvious that this game's name comes from the popular *SimCity* series. This is another God game, where you are God and control all humanity in your city. Your aim is to build a prosperous city, provide jobs for everyone, and basically keep them all from killing and crime due to starvation.

After running the game, the first thing you will notice is the top view format of *LinCity*—unlike the isometric (3D) view of other God games. This is the only major stumbling block of the game, as the rest of it is as comprehensive as it gets.

If you need help, all you need to do is right-click on something, and a help tip pops up—very handy. Although you need some time to adjust to this game and its controls, we suspect it's only because we don't have any God game fans at *Digit*, so we're not used to the workings of city games. However, going by popular opinion, *LinCity* is as good as it gets if you want a free city simulation game!

If you're a simulation addict, *LinCity* will give you days, and even months of gameplay to look forward to. Don't forget to visit <http://lincity.sourceforge.net/> for help and documentation. The installer file is on the *Digit* November 2005 DVD.

5.5.3 Racing

Games such as *Need For Speed* brought about a craze for racing games like never before. With the ability to drive (and crash) the latest cars, racing games were ideally suited for car lovers. The graphics and sound only improved over the years, and racing games have added the ‘reality’ aspect by making players compete in races and then buy and sell car parts, and even upgrade cars—just like in real life.

It’s obvious that all this interest had to spawn an Open Source racing game sooner or later, which would be developed and played by car lovers...

TORCS

“Gentlemen, Start Your Engines”

TORCS stand for The Open Racing Car Simulator, and, as the name suggests, it’s totally free! Is it as attractive as the latest in the NFS series? Afraid not—it’s a simulator, and is pretty realistic, but not nearly as good looking. The advantage of Open Source games is that they’re playable over any major platform, and thus are quite popular with non-Windows users. TORCS, however, is equally well-known with Windows users, and isn’t system heavy—the installer is just a little over 50 MB.



TORCS is an Open Source racing simulator

After the installation, you need to configure the game: the controls (keyboard, mouse, joystick or wheel), player setup, and various graphic options—pretty standard. When setting up the player, you can choose a car category, ranging from rear-wheel-drives, front-wheel-drives and four-wheel-drives to classics, Nascar and even rally cars. The game modes range from Rookie to Professional (arcade racing to a simulation). Now all that you have to do is select a race, a track and then start your engines.

The car models are detailed and well represented, but the look isn't ultra-realistic. Overall, the game looks neat and only in a few places will you feel that the scenery is more 2D than 3D. The cars move well, indicating good physics. But all cars tend to over-skid quite often which was the only fault we could find. Since the game is purely a racer, none of this will bother you—we mentioned a few flaws, but most people wouldn't even notice them.

The game was already provided on the *Digit* October 2005 DVD.

Machines Of Destruction

Drive And Destroy

Machines Of Destruction (MoD) fit into both the Arcade category as well as the racing category. It's an arcade racer-cum-3D shooter, where your aim is to reach the finish-line first (racer style), but to do so, you have to blast your opponents to smithereens.

The game has three modes: Race, Deathmatch and Ion Damage. Race mode is pretty straightforward—finish first and blow people away, Deathmatch is all about destroying the opponents, and Ion Soccer is a mode where you have two teams playing car-soccer with a metal ball, trying to score goals.

The game comes with a weapon creator, so you can create nuke-type weapons to annihilate the opposition, and set useful options such as firing rate, damage points, range and even the sound of the weapon firing. You can create a super-weapon and just enjoy the blood-sport, or use the default weapons and compete fairly.



Nothing is as fun as blowing up the competition in *Machines Of Destruction*

The game can be played by four players over a LAN, but many more can log on and watch the action as spectators. You can also play the game alone against computer bots, but we found that the true fun lies in playing over the network.

The graphics are strictly average, but the sound effects are awesome. With great gameplay, multi-player support and three different game modes, *MoD* offers continuous hours of fun and loads of replayability.

If the only way you can relax is to get into a car and blow up a few friends, this game is a must install. Warning: if you're playing this at work, turn the sound down low or people are likely to think that World War III just started!

5.5.4 Action

In this section, we talk about the graphic card destroyers—games that can operate only on relatively high-end systems. These games are generally first person shooters (FPS)—not to be confused with frames per second!

Though games such as *FarCry*, *DOOM 3*, *Half-Life 2* and *F.E.A.R.* dominate the headlines now, there are plenty of free games available. Most games were commercial products until a few years ago. Game developers and publishers often make older versions of a series free, in order to get more players hooked and thus increase the sales of their latest instalment. This is a trend that has been really beneficial to the average gamer, as one can now get some great games that cost more than Rs 2,000 just two years ago, for free today.

At the same time, not all the games listed here are an older version of a current game series—some of them have always been free...



Action games such as *F.E.A.R.* dominate the news, but free action games are also available

.kkrieger

Code By KB

This game is remarkable. Why? Does it have amazing graphics? Sound? A strong story-line? Super-cool weapons? The answer to all that is a simple NO!



At just 97 KB, .kkrieger sure offers some pretty impressive graphics

The game has decent graphics, arcade-like sound, no story-line whatsoever and pretty average weapons. The monsters look weird, and the aim of the game is to destroy everything that moves. You can complete the entire game in a matter of minutes, and there's no replayability at all. So why are we even mentioning this game?

Consider this, FPS games are known to be huge installer files. In fact, FPS games now ship with a minimum of three CDs, or a DVD. So, you will need several GBs of free space to install and play the game. In contrast, the size of the entire KKrieger game is a mere 96 KB. Yes, you read it right the first time—it is 'KB'. The game doesn't download anything else from the Internet, and we're not joking.

After looking at the file size, the game starts to look a lot better. You start wondering, what amazing compression technique are they using? How did they fit all of those textures into a sub-100 KB file? Considering that the average e-mail attachment today is several times larger than 96 KB, even on a slow 2 Kbps (16 Kbps) line, the

game will take less than a minute to download, this game truly is remarkable. Will it run on just any system? Nope! It needs at least a 1.5 GHz CPU, 512 MB RAM (preferably DDR), and a 128 MB graphics card that's compatible with at least PixelShader 1.2 and DirectX 9.0b. What it doesn't need, however, is tonnes of hard drive space!

The game developers (www.theprodukt.com), have spent thousands of man hours trying to fit the game into the tiny package, and we mention it here as a tribute to their efforts. Install the game from the *Digit* November DVD, and remember to read the `readme.txt` file. Overall the game is a must-play, even if it's just the one time out of curiosity!

America's Army 2: Special Forces

You're In The Army Now!

Basically, this game was made to increase interest in the US army. In order to combat the low sign-up rate for the American army, someone came up with the brilliant idea of making a game that depicts the life of a soldier in the US army. Since the target age



America's Army 2: Special Forces will train to become a soldier in the US Army

group of army recruiters has always been teenagers, this game would take their message to them.

America's Army (AA) has been a hit from the time it was released. The graphics are great, the sound excellent, and the gameplay is interesting. The major drawback is that it's an online multi-player, so a decent Internet connection is required to actually enjoy the game. Considering the increase in Internet penetration over the years, this should not deter too many gamers from giving it a try.

The latest release titled *America's Army: Special Forces*, sees you start off in the army as a regular cadet and work your way up the rungs to become a Green Beret (basically an elite Special Forces soldier). You choose a career path for yourself: including Weapons Specialist, Communication, Intelligence, Engineer and even Medic. That done, you embark on your journey to becoming a formidable fighting machine. In order to be able to advance, you need to follow the US army code of conduct: integrity, duty and honour.



Use stealth to help your team mates advance

You will be trained using simulate missions, and even sent on real missions. The trick is to just follow orders, like a good little soldier! Missions are mostly multi-player based, where you will be forced to work with others, or fail. While there are some single-player missions, it's the multi-player missions where you are forced to work as teams that are the real fun.

This game is best described as a simulation FPS as the gameplay is very realistic. You cannot even get online unless you complete all the requisite training missions that get you accustomed to the controls. The game goes as far as teaching you in a classroom-style, where you are given a lecture and shown how to identify different guns and vehicles, or treat specific wounds. What's more, there are even tests or quizzes after some training sessions—though not a big hit with most FPS fanatics, this does add reality to the gameplay.

Another good or bad thing about this game, depending solely on your opinion, is the fact that there's no music at all. We felt it was a good thing, because when you're a soldier trying to stealthily advance on an enemy, or are on lookout duty, you're not likely to have heavy metal blasting in your ears, courtesy your iPod!

Since the game is huge, you will need a decent system to play it, and tonnes of hard drive space. However, this isn't different from any of the other full-sized FPSes out there.

Overall, this is one of the best free games available, and if you have a 64 Kbps+ Internet connection at your disposal, you're bound to have a lot of fun. The latest release (v2.4) is provided on the *Digit* November 2005 DVD.

Cube

Fun To The Third Power

This game is an Open Source project, and has grown quite well. While it's relatively unknown to the masses, *Cube* will definitely make enough good impressions to stay the distance. The game is a regular FPS, but uses its own specially designed engine. According to the developers:

"*Cube* is a landscape-style engine that pretends to be an indoor FPS engine, which combines very high precision dynamic occlusion culling with a form of geometric mipmapping on the whole world for dynamic LOD for configurable fps & graphic detail on most machines. Uses OpenGL & SDL." Whoa!

The installation is easy, and the game's system requirements aren't ridiculous. The sound is good, though we suspect that it's the good, original music that you will like, and not the in-game sounds of monsters, firing and picking up ammo. The graphics are good, though not of the *DOOM 3* or the *F.E.A.R.* calibre, they



Cube: It's not *Quake* or *Doom*, but it's still great fun to play

are still capable of eliciting some Oohs and Aahs! The gameplay is good, and there is a never-ending list of maps to play. The multi-player mode is great, and the AI in single-player mode gives you a tough battle.

Overall, the game is a great free alternative. Take a look at the screenshots to get a feel, and visit www.cubeengine.com for coloured screens and more information. The installer is in the *Digit* November 2005 DVD.

Return To Castle Wolfenstein: Enemy Territory

Axis vs Allies

Yes, you guessed right, this game is set in World War II, and is another war-based FPS. The game is multiplayer-only, and you'll need an Internet connection in order to play it. Not as vast and detailed as *America's Army*, *Wolfenstein: Enemy Territory* still offers an exciting adventure for those addicted to multiplayer FPS games.



Wolfenstein: Enemy Territory brings war combat into your home

As we mentioned, the setting is World War II, and you have to choose between being an Axis (Germany, Italy etc.) soldier and an Allied (US, UK etc.) soldier. Though you get only six huge maps to play on, this certainly seems enough, as the game supports as many as 64 players at a time. This really does make *Wolfenstein: Enemy Territory* a great multiplayer game.

To keep it real, you can increase your skill and experience during battle, as you would if you were really a soldier. You also get citations and promotions when you do well. Gameplay is not linear, and we found ourselves consistently finding alternate ways of completing our objectives. This means that unlike most FPS games, when you get the command to infiltrate a stronghold, there are more ways than just charging the front door and losing your life for nothing.

You should forget about playing this game if you are not a team player, because all you're going to accomplish is getting your team or yourself killed, and soon no one will let you on their servers. You also have to be willing to help your team mates out of a jam, especially if you want to call on one of them for help at some time; and trust us, you will—when a sniper has pinned you down, you'll be typing help messages to anyone who'll listen!

Overall, this game is a must-try for those who love online multiplayer FPS games, and a boon for the World War II junkies out there!

Code Red: Alien Arena

Deathmatch Party

After ID software, the developers of the *Quake* and *DOOM* game engines released the *Quake II* engine to the public (made it Open Source), a team of developers started the *Code Red* series. Based on the *Quake II* engine, *Code Red: Alien Arena* is the third game in this series. The game is Open Source, which makes it available for all platforms. It is a simple death match FPS game, very similar to *Quake III*.

The major advantage this game has over others is the fact that it incorporates bots, so you don't have to go online to play it.



Based on the *Quake II* engine, *Code Red: Alien Arena* is a great game to play

The game has the standard Deathmatch mode, where it's every man/woman/child for himself (or herself). It also incorporates a Team Deathmatch mode (for those who like company), a Capture The Flag mode (a la *Quake III*), and the latest improvement, All Out Assault, in which players get to ride vehicles as a bonus!

Overall, the game has enough maps to keep you occupied, and the addition of bots gives it an edge over the rest. You won't know until you try it, so install it from the *Digit* November 2005 DVD!

Hidden And Dangerous Deluxe

Four Times The Fun And Frustration

Yes, this is also a World War II shooter that was first released in 1999. The difference is that *Hidden And Dangerous Deluxe (HaDD)* is not a traditional FPS, but more of a tactical shooter. In other words, there's loads of strategy in the gameplay, and there's no way you can finish the game by charging everything that moves.



Hidden And Dangerous Deluxe is much more than just a shoot-em-all FPS

You control four British Special Air Service (SAS) soldiers—yes four of them, not just one—and have to lead them behind enemy lines to complete numerous missions. Yes, the game is tonnes of fun, and has a very high replayability factor. You will have the time of your life when ordered to assassinate top brass, spy on proceedings and obviously, blow stuff sky-high!

In a game where you have to control four men at once, the AI had better be good, right? Wrong! The AI, quite honestly, is bad. There are times when a soldier in your group just won't do anything. One would think a crack SAS soldier could take a step or two to the left when being shot at, but not in *HaDD*, no sir!

Also, enemy AI can be stupid at times, and enemy soldiers are best taken care of with a sniper rifle: when they start approaching your general direction, they almost always choose stupid paths that lead them into open spaces or get them puzzled over how to climb a ladder all at once—how about one at a time boys? Oh well, bang-bang, you're dead!

As a great leveller, of sorts, your soldiers can be just as stupid, and telling the group to go in a certain direction seems to make them forget that they're several thousand miles behind enemy territory, as they sprint in the open towards the spot you marked while you hide behind bushes and curse them with language that would give your mother a heart-attack!

So what's with all this bad commentary about the game? Why even mention it if it's no good? Well, the complicated controls and artificial stupidity apart, this game is really, really worth every minute you play it. It's as addictive as sin, has decent graphics, and has hours-upon-hours of non-linear gameplay to look forward to.

Basically, the bugs are easily worked around: the game has a simple tactical mode, where you can select a player with a left-click and send him to a particular spot by using right-click. Using this mode when players get stuck is really beneficial. You can also switch between players using their assigned hotkey, so you can always take over from an imbecile who's not doing his job.

The espionage in the game makes it exciting, and you will encounter many 'heart-skipped-a-beat' moments when you almost walk into heavily armed guards, or into civilians—especially when you're supposed to get in or out of a place without being spotted. Take a look at the screenshots provided to see the different aspects of the game that we have mentioned—both good and bad!

There's also an expansion pack included in this 'Deluxe' package called *Devil's Bridge*, which adds nine new missions to the original title, but sadly does nothing to improve the AI IQ. Overall, with great sound and music, decent graphics and gameplay, HaD2 is one of top ten free games you can get—if you don't want to take our word for it, play it yourself and see. All you have to do to play this game is pop the *Digit* November 2005 DVD into your DVD drive and install it!

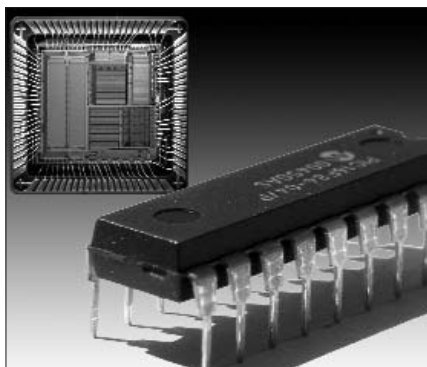
Gaming Rigs



Ever since computers came into existence, it's been quite a Darwinian journey for them as well as for us. Computers were largely associated with rocket scientists and not the average person. That was before the introduction of the desktop computer, after which everything changed... for the better. Do you know what made the desktop computer what it is today? Read on, and you'll understand what kind of a hardware juggernaut you'll need to smash your gaming rivals to smithereens!

6.1 What Has Changed Since The '80s?

Personal computers came into existence a long time ago, as a result of two path-breaking technological innovations—the Integrated Circuit (IC), and as a consequence of this, the Microprocessor. This was in 1971, when most of us “gamers” were still unborn. The invention of the microprocessor was single-handedly responsible for the beige boxes that sit on our desks today.



The early microprocessor and a regular IC

However, the PC or IBM PC like we called it back then only hit the market 10 years later. This PC shipped with hardware that would probably make us laugh today, but was the top of the line then, and yes, it did cost a fortune. Let's take a look at the IBM 5150 Personal Computer, the big daddy of them all, which actually started the PC revolution.

There were a lot of other PCs available, but this was something else. IBM had already played with the PC markets with their earlier models—the IBM 5100 in 1975, and the IBM Datamaster sometime during 1979 to 1981. But both these models were extremely expensive, and sold poorly.

With the 5150, IBM decided to go radical. While the earlier models used IBM-proprietary processors and data cassettes to store and retrieve information, this model was different. Next page gives you rundown of the specifics the IBM 5150 sported back in 1981 when it was released.

Another notable factor was the appearance of Microsoft on the scene with their operating system—the PC-DOS Version 1.0—and the processor which was the first from Intel for IBM.

The adverse side-effect of this was that other

no-name companies could obtain these same components and create their own version of the PC, and deplete IBM's market. But there was one aspect of the PC which could not be legally copied—the BIOS, as it was copyrighted and protected by law. However, Compaq and the others eventually found a legal but 'dishonest' way to duplicated that as well, opening the floodgates to cheaper (but still compatible) IBM clones.

Although not necessarily the best machine by technological standards, IBM's expertise and the fact that the IBM PC actually looked and felt like a professional computer system made it and numerous other PC clones extremely popular. They have evolved into today's Windows and Intel (Wintel) systems.

However, there was no mention of the term 'graphics card' either by chip or by name. This is because the entire graphics business had yet to take off. Nobody had yet tapped into the potential of the PC, and gaming on the PC was still a distant possibility.

As computer costs declined, the machines became more and

IBM Personal Computer

Model	5150
Price	US \$3,000 (Rs 30,000)
CPU	Intel 8088 @ 4.77MHz
RAM	16K; 640K max
Display	80 x 24 text
Storage	optional 160 KB 5.25-inch disk drives
Ports	Cassette and Keyboard only Internal expansion slots
OS	IBM PC-DOS Version 1.0

more accessible. Users began to chuck their typewriters for the wordprocessor on the computer. This sudden shift in the way people worked became apparent. While “working on the computer” did actually mean working on the computer back then, people also started to look to the computer for recreation.

The first game to ever be played on a computer is very possibly *Spacewar!*, developed in 1962 at MIT. *Spacewar!* was designed to run on a PDP-1 computer (size of a large car!). By today’s standards, the graphics were, of course, primitive, although less primitive than some of the games from the ‘80s. The story of the game is pretty simple: two players control a spaceship each, circling a planet. The players shoot each other, turn their ships, and accelerate. The goal is, naturally, to hit the other player before being hit yourself. This game, however, did not go commercial, and remained in the hands of a limited few.

Arcade games such as *Pong* can be considered to be the first games available commercially. Since we are not talking about arcade games here, let’s focus on the games that were available for computers at that time. Computer games in those days were originally meant to be played on mainframes, and most of them used text input.

Hunt the Wumpus was another game that made its appearance after *Spacewar!* This game was developed by Gregory Yob at the University of Massachusetts in Dartmouth in 1972. In this text-based game, the player moved around a system of connected caves, armed with only five arrows, searching out the elusive Wumpus, a creature that would



First game played on a PC: *Spacewar!*

also be roaming about. In each room, the player was given clues to happenings in the surrounding caves. This game was engrossing—

you could feel a draught from one of the lethal bottomless pits scattered around, hear a pack of bats that would carry you away to a random cave, or even smell the mighty beast itself.

The object of the game was to fire an arrow into the room which contained the Wumpus.

This was the early age of personal computer hardware and the gaming: a few kilobytes of memory and a few megabytes of hard disk space were luxurious commodities, and it was assumed that the computer would be as interesting to users as HAM radio is to FM listeners. In fact, even Bill Gates went on to proclaim that “640 K ought to be enough for anybody,” and that “No one would need more than 637 KB of memory for a personal computer.”

Much has changed: After 25 years of evolution, the PC has now become the centre of all things technology. Complex mathematical calculations that required mainframes in the past can now be easily done on a laptop. Graphics hardware, which did not even merit a mention in the past, has now become *the* criterion for buying a gaming computer.

These changes did not happen overnight. Like in any other evolution, the PC took its time to get the attention that it has now. Let's take a non-specific look at some of the main architectural changes that have happened since the 1980s and that directly pertain to the gaming experience.

The Processor: From running at 108 kHz, Intel's processors have broken speed records and are currently at speeds upwards of 3.4 GHz. The same goes for the AMD tribe, who have gone a step ahead and come up with a 64-bit edition that provides a larger data address bus and also higher on-CPU memory cache sizes, leading to better overall system performance.

The Memory: RAM, which has always been the type of

memory of choice for keeping and accessing data, remains but there's been a drastic change in architecture and speeds. While yesteryear's memory modules could make do with data access that happened one way at a time, today's architecture is pushing the limits, and using dual-channel technology, data can now be written and read from memory at the same time, thereby leading to performance gain.

The Motherboard: From the time of the PC XT to today, this is one component that has undergone massive changes with each generation. The one component that has remained on the motherboard for the past three generations is the PCI slot; though it has undergone revision changes, its appearance hasn't changed. It's still white, and is still featured on the spanking new PCI-e generation of motherboards.

The Hard Drive: This component used to be called a Winchester disk when it was first launched. A secondary storage medium, today's hard drives can be compared to mainframe data storage systems that were available until a few years ago. Capacities of drives used to range from 60 MB to 240 MB; drives today have capacities more like 250 GB and 500 GB. Rpm speeds were much lower than what we see today. And costs were far higher than the present rates. In fact the first hard drive for micro-computers, introduced by Seagate in 1980, the ST506, cost approximately \$1,000 (Rs 10,000 back then) and its storage capacity was, can you believe it, a measly 5 MB!

We haven't talked about the video card in this list of hardware, as there is an entire section on video card later in the chapter. Talking about the video card here will not justify the position that it commands today's gaming scenario.

Gaming Requirements Of Today

The games we played in the past did not require us to get dedicated gaming equipment. However, if you've ever played an arcade game, you would know how much easier it is to handle a spaceship using a joystick rather than a keyboard. This is what we are talk-

ing about: as games get more specialised, there is also specialised equipment that takes you beyond the keyboard and the mouse.

We aren't demeaning the mouse or the keyboard. The mouse still rules when it comes to point-and-click adventure games, or taking headshots in FPS. Different mice have different capabilities.

The very basic gaming equipment consists of four devices: mice, gamepads, joysticks, and racing wheels. Of these, the mouse is a device you can use for purposes other than gaming. The other devices are used only for gaming. Let's look at these devices one by one—we will look at devices, small and large, and also at some of the best that money can buy.

The Mouse

This unassuming little device has been around since the time the Apple Mac was introduced back in 1984: the GUI (Graphic User Interface) of its OS required a mouse to be used. There have since been a lot of mouse-related innovations, but mice remained in the trackball era for a long time. With the introduction of the optical mouse, a whole new world opened up for gamers. Wireless mice made more sense, too. However, there was one tiny drawback with optical mice: the light source used was an LED, and the precision offered by LEDs had its limitations. This, of course, means a lot for gamers.

Here's what Logitech has to say about the laser technology it debuted with its MX1X series of mice:

"Laser illumination reveals structure that an LED simply cannot express. The coherent



The Rotograf R2 Mark II gaming mouse

nature of laser light creates patterns of high contrast when its light is reflected from a surface. The pattern appearing on the sensor reveals details on any surface, even glossy surfaces that would look totally uniform when exposed to the LED incoherent illumination. The precision image sensors then have no difficulties in tracking on these patterns and calculating position and movement. This is how laser enables tracking on virtually any surface.”

With the introduction of laser mice, gaming would never be the same again—they have made gaming more fun than ever! Top-of-the-line mice such as the Logitech MX1000 and the RaZor Diamondback offer top-class gaming performance as well as ergonomics that will help your hand avoid CTS (Carpal Tunnel Syndrome) for some time. But there’s an interesting device that has now grabbed the gaming community’s attention. It’s the Rotograf R2 Mark II Gaming Mouse.

It is a circular device that behaves like a mouse, but has some interesting new additions. It features 1600 dpi resolution optical performance and some extraordinary electronic gaming functions for exemplary gaming control. The R2’s patented Rotary Grip Form Function delivers extreme handling performance. It has seven Smart Buttons, making it more than a mouse: it is an intelligent controller with self-contained computing resources that can send complex game command macros at the press of a button, making for unrivalled gaming performance.

The device is 35 per cent lighter compared to regular mice. It provides control over individual X/Y positional sensitivity settings, LED luminance, and also has its own programming language (PAL 2.0). Combined with 32 KB of onboard memory, even a 12 MHz Cypress CY64730035 processor and an embedded OS. This mouse co-ordinates event sequences among its four top buttons and three pressure zones. “Grip zones” coupled with shift functions multiply the commands available through each button, which can be tailored on a per-application basis.

Now that’s a mouse gamers *have* to own!

Gamepads

These devices can be configured to play any kind of game, such as a flight simulator or a car racing sim or a shoot 'em up. Such controllers come in handy especially in games where you have to meddle with a lot of buttons on the keyboard. Due to the style of placement and the grip offered, the gamepad beats the keyboard any day when playing such games.



The Nyko Air Flo gamepad

There are various gamepads available in the market today, ranging from el-cheapo ones to the best in the business. However, game pads are associated more with the console segment, since consoles by themselves come bundled with at least one controller which is a gamepad.

Not much has changed over the years in the PC gamepad segment other than the inclusion of force-feedback and two small joysticks similar to those present on the PlayStation consoles. There are various brands available, ranging from no-name Taiwanese companies to well-known manufacturers such as Logitech. Microsoft used to make good quality gamepads; however, they've now wrapped up their gaming peripherals business.

One of the latest gamepads that's become available is the Nyko Air Flo. This gamepad is unique because of a nifty innovation incorporated into the joystick.

Using a handheld device for a prolonged period of time usually leads to sweaty palms. And when playing games, sweaty palms can make or break your game! The Nyko Air Flo gamepad resolves this issue. It uses a little fan positioned at the bottom of the gamepad to direct a steady flow of air through slots in the grips.

This flow of air also acts as a massager of sorts, thereby holding off cramping in your hands during prolonged gaming sessions. The fan has two speeds and an off setting for when you are taking your Porsche for a ride. Here's what it looks like.

Joysticks

Not only are these shaped like the real controllers you'd probably see in a plane, these devices also mimic the controls present on a real-life, commercially-used joystick. Joysticks come in especially handy when playing flight sims; this doesn't mean joysticks can't be used to play other games such as racing sims or FPSes, but it's more cumbersome to use joystick in a racing sim or an FPS than a keyboard. So, all flight sim enthusiasts—get yourself a joystick.



The Thrustmaster HOTAS Cougar Joystick

So which is the top-of-the-line joystick right now? Look no further than the Thrustmaster HOTAS Cougar. This joystick has actually been modelled on the actual controller found in the F-16 fighter aircraft. In fact, the Thrustmaster Web site proudly proclaims this joystick is used by the US Air Force for pilot training. Like the sound of it? We do too!

Racing Wheels

Similar to joysticks, these are specialised devices built for—you guessed it—racing sims. Not much can be done with these peripherals other than, well, driving cars. That doesn't mean you don't get variety in this, since some of the best racing wheels available in the market are exact replicas of those used for professional driving in real-life cars. For instance, the Momo racing wheels manufactured by Logitech carry the Momo endorsement logo—one of

the biggest names in racing wheels for Formula 1 racing cars. But the Thrustmaster again takes the cake here with their exact replica of the Enzo Ferrari Force Feedback racing wheel. Yes, you can now have the Prancing Horse logo right between your hands as you race your Ferrari to victory in *Need For Speed: Most Wanted*. You also get the foot-pedal set that has the controls for the acceleration and braking of your car.



The Thrustmaster Enzo Ferrari Racing Wheel

The devices we've talked about here are regular devices that any gamer will want to possess, irrespective of whether it is a top-of-the-line product or not. The devices we talk about next are stuff designed to catch your fancy; some of these devices, however, border on the esoteric.

Gaming Gloves

Gaming gloves are the latest must-haves for gamers. No, these gloves are not meant for punching each other at a LAN party, but you can use them to pack a mean punch to your opponent at a LAN party, in a computer game, that is.

Gaming gloves come in many varieties, including a three finger wrap, a half-palm wrap or a two-finger wrap. Products such as the Gameskinz Gaming Glove or the Steel Gaming Glove—GG3 help in playing games for extended sessions. However, these devices are not meant for regular use.

The main purpose of gaming gloves is to protect the wrist from strain and also to ward off the sweaty-palm syndrome. The utility of gloves is extremely limited unless you are gamer, however.

VR Goggles

Remember the time when you used to read 3D comic books? The books which came with a pair of plastic glasses with red and green lenses? Yes, the 3D effects in the book

were quite corny, but it was still 3D—enough to entice us when we were kids. Now, imagine if this happened when we were playing games or watching movies. Interested?



Get in the game with 3D goggles!

Virtual Reality eyewear or VR goggles, as they are generally called have been around for a pretty long time. In fact, Asus was one of the first video card manufacturers to bundle these goggles with their video cards.

There is a real sense of immersion when playing games using these goggles. You really can't describe the feeling you get when you play wearing these goggles.

So why is this gadget not on every gamer's list? These goggles offer an engaging experience if used with an application that supports stereo-imaging. But there's a huge list of applications that do not work properly with stereoscopic goggles, so it's a dicey investment. In addition, there are some inherent drawbacks such as eye fatigue, resulting from excessive use of stereoscopic goggles. It is recommended that users take a break every hour to prevent eye fatigue and the resultant damage to the eyes. And finally, the price: several of these goggles cost a bomb!

One of the hottest and latest gizmos in this category is the eMagin Z800. These goggles can be used for gaming as well as movies. You also get a pair of stereo audio ear-buds, a head tracker, and an integrated microphone with this device that runs on

USB power. The head tracker gives you the freedom of movement for your head and provides the co-ordinates for the X,Y and Z axes. It also has the Micro-Electro Mechanical Sensor, that has independent gyroscopes and accelerometers that make for a smooth and engaging experience when using the goggles. The price, however, is \$900 (nearly Rs 40,000). So, if you want one of these babies, jack up your credit card spending limit!

Is there such cool stuff also for consoles? Well, other than a PlayStation mouse, there isn't much to talk about, except for the USB camera Sony launched for the PlayStation. But before you say "Not another USB camera!" you've really got to see this thing!

The EyeToy, as Sony calls it, plugs right into the front of the console. But that's not all. You also get the "EyeToy:Play" set of games that make you a part of the game. Don't get it yet? Well, here's how it goes!

The "EyeToy:Play" is the gaming side of the USB camera. It is a suite of small games suitable for all ages, and features a lot of interactivity. So if you're playing the Kung-Fu game, all you need to do is flail your arms and legs in the air and that gets converted into moves inside the game!

This is an extremely interesting concept, and the range of its applications can be mind-boggling. But for starters, it sure is fun to match your Kung-Fu skills against virtual opponents. However, please proceed with caution—you might hurt your grandma or hit your pet dog in the process!

Now that we've talked about the peripherals, let's talk about stuff that will make you drool. The best stuff that gamers need and the best that money can buy!

6.2 A Gamer's Drool Rig

Every gamer wants to own the best—not necessarily that he ever will, but there is this unsaid hunger inside every gamer's mind. For those interested in consoles, it is the TV that takes the centre of attention, but in the case of a PC, everything counts—and we mean *everything*. Given below is a list of items that plugged together inside and outside a computer cabinet can help you pulverise your opponents when playing games and, of course, kill them with jealousy and envy when you're talking about them!

The PC Case

The choicest of components need a place to reside in. And the choicest of the components need the absolute best in PC cases.



Various Antec cabinets
in all their glory!



Exotic names such as Lian Li, Xoxide, Chieftec etc. are not available with local dealers in India, so there is little point in talking about them. What is available here, though, is Coolermaster, Thermaltake, and Antec.

Antec is renowned worldwide for their sturdy PC cases and great power supplies, and for our top-of-the-line PC, we will talk about nothing less than Antec. From the Performance One range of Antec Towers, we chose the Antec P180.

The primary reason being availability, and the second being the innovations featured within. This case has a separate chamber in which the power supply resides, so as to isolate the heat of the power supply from the rest of the system and lower the system noise. Other features include a three-layer (aluminium-plastic-aluminium) side panel that ensures the case remains quiet when the tension is high and when the slightest noise can destroy your game. Priced at Rs 10,500, this cabinet is a must-have if you can afford it. Before we forget, the case comes without a power supply, so you need to make sure you choose the right power one. This is what we talk about next.

The Power Supply

This is a difficult component to decide on. There are plenty of power supply vendors in the market who will talk about 400 W–450 W power supplies available at half the rate of branded ones. Beware of such power supplies, since the promised power is never attained. The thing to look for is the 12 V rail, which should have a current rating of 18 A and above. The higher the better.

Branded power supplies such as the Antec Truepower or Phantom series or the ThermalTake PurePower series go on to provide dual 12V rails that have a power rating of 20A each! That is more than enough for four hard drives on RAID, two optical drives, two video cards with power connectors (think SLI) and the regular stuff including the motherboard and other components; and you still have power to spare! However, if you are not satisfied

staying in the Watt range of power, you can probably think about purchasing the Enermax 1 KW power supply. Yes, you read it right, it is 1 KW!

However, if you decide on it, the hole in your pocket would be a crater! More in *Digit* about this power supply when it debuts later this year.

For a generic 550 W power supply from Antec or ThermalTake, be ready to shell out anywhere from Rs 6,500 to Rs 7,500, depending on the market price at the time.

The Motherboard

The heart of your computer, everything gets plugged on to this component. Absolutely everything! And for our gaming rig, we chose the Gigabyte 8? Series GA-K8NXP-SLI for the AMD platform, and the MSI P4N Diamond for the Intel Platform. And as for why we're choosing these specific motherboards, check out the *Digit* high-end motherboard comparison test (November 2005).

The RAM

The RAM is one of the most crucial components—it can make or mar your gaming experience. It's no wonder that one of the biggest RAM module manufacturers has the name 'Crucial'! Sadly, there is no vendor in India who sells 'Crucial' modules.

The RAM market again is extremely murky, and you will need to proceed with caution when getting yourself memory modules. Again, for gaming, the larger the memory size, the better. Increasing the amount of RAM may or may not affect regular applications, but game performance is directly hit by the amount of RAM you have.

About buying RAM, if you want to get high-performance RAM such as Corsair or Kingston, be ready to spend at least Rs 10,000 for a single GB. Lesser brands are also available, but are not worthy mentioning when you're building the gaming rig of your dreams.

If you do have someone abroad, make sure you get the Crucial Ballistix series of DDR RAM for your system. Don't tell them the price though—get it as a gift!

The Processor

You can't compromise on this component at any cost. So which processor is the best? Undoubtedly the AMD Athlon 64 X2 4800+! This baby beats the pants off the nearest competition, the "other" dual-core, the Pentium D 840. These two cost about the same.



AMD and Intel processors

The performance of the X2 4800+ far surpasses that of its own cousins such as the FX-55 (which even now costs a bomb), while all the Intel processors, including the dual-cores, look up to it. The major thing we need to tell you about the 4800+ is not just that it's a dual-core; it's about the optimisations that have gone into it. If you have the moolah, look no further than the 4800+!

The Hard Drive

Seek times need to be faster, storage capacity higher, heat generation needs to be lower, and there needs to be a larger internal memory buffer. Does any hard drive possess all these qualities? Look no further than the Western Digital Caviar RE2 WD4000YR! It has everything. One question a true-blue gamer might ask at this point is, why have we chosen the WD hard drive, and not the Raptor one that spins at 10000 rpm? That's exactly the point. Higher spin speeds generate a lot of heat. This was minimised in the Raptor but not really eliminated. Another factor was the lower capacities in which the Raptor range is available. Hence the WD Caviar RE2 WD4000YR.

Currently, this drive is the fastest-performing among all competing drives, and also provides a 5-year warranty—not to mention its next-gen SATA-2 specification. The price? Approximately \$220 (Rs 9,700) for a 400 GB drive.

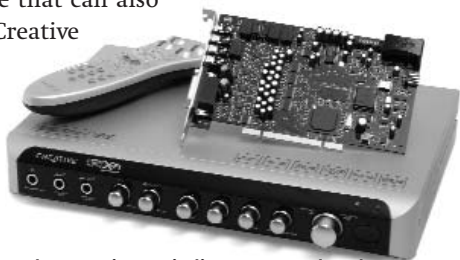
The Optical Drive

Optical drives are a necessity that you cannot ignore. And we're not talking about just any CD or DVD writing drive—we are referring to the Lite-On SHW-16H5S LightScribe. Why this drive? Firstly, it belongs to the Lite-On family of drives that have a reputation of building robust and affordable drives with excellent error correction capabilities, and also provide a vast set of features including automatic speed adjust for less noise and vibration, dual-layer dual-format support with writing speeds of up to 8X and, of course, LightScribe. Lightscribe is a special writing process where specially made recordable CD and DVD media can be labelled using a LightScribe DVD recorder. Remember, you need to have both the media and the drive which support LightScribe, otherwise it is useless.

The Audio Card

When it comes to the ideal gaming rig, there is one and only one audio card right now—the Creative Labs X-Fi Elite Pro, also the worldwide rage right now. Retailing at Rs 22,000 or so, this card is more expensive than the Creative Megaworks 550D set of 5.1 speakers.

But hey, this baby rocks! The high-end DACs, guitar input, and music creation apps make the Elite Pro a juicy option for any gamer. Plus the remote that can also be used with select Creative speakers, and the break-in board that has a host of connectivity options for you to play with. Did we mention the onboard 64 MB X-RAM? That



The Creative X-Fi Elite Pro Soundcard

should be more than enough to entice you! Keep watching Digit for a exhaustive review soon!

The Video Card

Do we need to say this? Dual nVidia 7800GTX in SLI mode. ATi has paper-launched its next-gen cards, and we have yet to lay our hands on one. Till then, nothing beats this. All we can say is—wanna play?

Speakers

Any gamer would like a good set of speakers. Make that an excellent set of speakers. For some time now, Creative has been ruling the roost with its Megaworks range, but with the launch of the Z-5500 5.1 speakers, Logitech has made Creative bleed, and bleed badly.

The Z-5500 has a 10-inch sub-woofer, the largest among desktop PC speakers, but what sets it apart is the onboard decoder that can do Dolby Digital, DTS (Digital Theatre Systems) and even DTS 96/24! Priced at a decent Rs 24,000, these speakers feature optical, SPDIF and analogue inputs, giving it versatility without compromising on features. Gaming, music, or movies, these speakers are on the most-wanted list.

The Monitor

This depends on personal taste, and you can either opt for an LCD or a CRT. If you're opting for an LCD, make sure the pixel response time is lower, and if you're looking for a CRT, make sure it's a Trinitron. Size, the higher the better; cost, don't ask.

Our personal choice is the Viewsonic VP201B. Still to make its entry into the Indian market, this 20-inch LCD costs \$1,200 (Rs 53,000), but the image quality during gaming or any other use is yet to be seen on other LCD monitors. Expect Samsung and Sony to catch up with this range in just a few months.

The Keyboard

It's up to you whether you'd like to get yourself a gaming keyboard or stick to other gaming peripherals such as mice and gamepads. If you really want a gaming keyboard, the Saitek PC Gamers' Keyboard fits the bill. If you are looking at a typical keyboard, get the Wireless Optical Desktop Comfort Edition. It's a wireless keyboard and mouse combo with comfort pads—useful in lengthy gaming sessions.

The Mouse

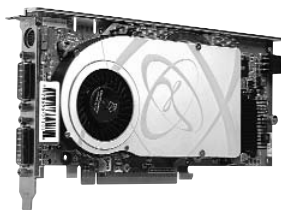
We've already spoken about mice in the gaming peripherals section. You can refer to that section, or, just choose the Logitech MX518 gaming-grade optical mouse. Although this thingy is wired, it still packs a mean punch when it comes to gaming. Retailing at around Rs 5,000, this mouse will definitely not disappoint you.

This more or less finishes our dream gaming rig configuration. Of course, by the time you read this, something new may have caught our fancy, but until then, this is what we're sending dear old Santa as a wish list.

6.3 The Evolution Of Graphics Cards

The video card, per se, made its appearance a long time ago, even before the term was coined. It was only with the introduction of 3D accelerators that users really got up and took notice of what video cards were able to do to visuals. Graphics and games never remained the same again with the introduction of the 3D graphics accelerator.

Video cards were referred to as video adapters, and were simply used to generate text and primitive computer graphics on the monitor (or Video Display Unit as it was called a long time ago). Video support was extremely limited, and was in the form of sprites i.e., animated images that form objects or characters in 2D games. Simply put, they are bitmaps of arbitrary shapes that can be moved across complex backgrounds. This was because the video adapters by themselves were processor-limited, and the system processor in most cases was without a floating-point unit processor—which restricted much of the computation required to render graphics onscreen.



The XFX GeForce 7800 GTX
256MB

With the evolution of and innovations in chip technology, microprocessors moved from the realm of being just system processors to being graphics processing units. After all, any general purpose CPU can be transformed to be a dedicated graphics processing unit. However, these cards with microprocessors were expensive, and for video cards to hit the desktop PC segment, vendors thought of an innovative way.

With the introduction of Microsoft Windows, rendering graphics on the PC took a new course. At that same time, vendors were able to make scaled down versions of microprocessor-based dedicated graphics cards, called 2D accelerators. These cards had drawing support and also had a frame buffer, which could cache

information. These cards were much simpler to make compared to the ones that had microprocessors which ultimately raised production levels and lowered the cost for consumers.

S3 was the first company to launch a 2D accelerator, in 1991, with the launch of their single-chip 2D accelerator, the 86C911. Once 2D graphics hit the desktop, the rest of the revolution was user-driven. Software developers began experimenting with graphics, and slowly but surely, the PC gaming idea began taking form. The early 2D games included the ever-popular *Wolf* and the *Prince of Persia*.

3Dfx

3Dfx was the first company to introduce the 3D video accelerator to the desktop PC. This was the Voodoo 1, and was not available to the general public. 3Dfx sold these accelerators to OEMs who put in their labels and manufactured and marketed the cards. 3Dfx did this since it thought the cost of the cards at which they would retail in the market would be too high, and that the OEM route was more lucrative.

The Voodoo 1 was more of an add-on card that needed to be daisy-chained with the VGA card for display. This card would start working when the user started playing 3D games on the computer. And for the graphics at those times, this card made users drool when playing games.

3Dfx deserves a notable mention here since it was the first company to come out with a 3D accelerator card. It was the catalyst the fledgling gaming industry needed to draw users to play games on the computer. And, 3Dfx was more than successful in doing that.

3Dfx was followed by several other manufacturers such as PowerVR and Rendition, but no one could gain as much popularity as the Voodoo. ATi was already on the scene, but still lagged behind 3Dfx. And after nVidia hit the graphics card industry, everything changed: the rest, as they say, is history.

nVIDIA Inc.

nVidia remained relatively low-key until the late 1997-98 period, when it launched its line of RIVA PC graphics processors.

nVidia's original graphics card—the NV1—was released in 1995. It had an integrated playback-only sound card. It struggled in a market full of several competing proprietary standards.

Market interest in the NV1 ended when Microsoft announced the DirectX specifications. NV1 development then continued as the NV2 project, funded by investment from Sega. Sega hoped an integrated sound and graphics chip would cut the manufacturing cost of their next console. nVidia thus abandoned proprietary interfaces, and sought to fully support DirectX. It dropped multimedia functionality.

The year 1999 saw the release of the GeForce 256 (NV10), most notably bringing on-board transformation and lighting. The GF256 ran at 120 MHz, and was implemented with advanced video acceleration, motion compensation, and had four-pixel pipelines. When combined with DDR memory support, nVidia's technology was the performance leader. Basking in the success of its products, nVidia won the contract to develop graphics hardware for the Xbox.

All this was too much for 3Dfx, whose Voodoo 5 had been delayed; nVidia purchased 3Dfx—primarily for the intellectual property that was in dispute at the time. But nVidia also acquired anti-aliasing expertise and a lot of engineers.

Subsequent problems between nVidia and Microsoft meant nVidia was not consulted when the DirectX 9 specification was drawn up. ATi then designed its 9700 to fit DirectX specifications. Rendering colour support was limited to 24 bits, and shader performance was emphasised. In contrast, nVidia's cards offered 16- and 32-bit modes, offering either poor visual quality or slow performance. The 32-bit support made them much more expensive to manufacture, and shader performance was often only half or less the speed provided by ATi.

As more and more games started to rely on DirectX 9 features, the poor shader performance of nVidia's GeForce FX series became more obvious. nVidia then became desperate to hide the shortcomings of the GeForce FX range. The 5700 Ultra, as a late revision, ended up as the only FX series part with competitive shader performance. And eventually, nVidia lost its market leadership position to ATI.

With the release of the GeForce 7 series, nVidia has once again emerged as the market leader. Currently, it will be assisting Sony with the design of the graphics processor for the PlayStation 3.

ATI Inc

ATI began as an OEM, producing integrated graphics chips for large PC manufacturers. By 1987, it had evolved into an independent graphics card retailer, marketing the EGA Wonder and VGA Wonder graphics cards under their own "ATI" banner. Each of these families offered enhanced feature sets that surpassed IBM's own display adapters. In fact, 1991 saw the release of the Mach8, ATI's first "Windows accelerator" product.

Windows accelerators offloaded display processing tasks. And 1992 saw the release of the Mach32 chipset, an improvement over its predecessor. ATI had established a reputation for quality multimedia-capable cards popular with OEMs; by the late 1990s, consumers began to expect strong 3D performance, and 3Dfx and nVidia were delivering.

The first warning was seen in January 1999 with the All-in-Wonder 128, featuring the Rage 128 GL graphics chip. While the basic 16 MB version sold reasonably well, the 32 MB version did not, because it lacked 3D acceleration appropriate for the price.

ATI's first real 3D chip had been the 3D Rage II, which supported bilinear and trilinear filtering, z-buffer, and several Direct3D texture blend modes. But the pixel fill rate was only next to S3's VIRGE range, and the feature list was only next to the Matrox Mystique.

The 3D Rage Pro released in 1997 improved, offering a fill rate equal to that of the original 3dfx Voodoo Graphics, and a proper 1.2 M triangle/s hardware setup engine. The Rage Pro was held back by poor drivers. It was only in 1999, almost two years after the original launch, that the drivers finally came good, delivering a 20 to 40 per cent gain over the originals. ATi then learnt to prioritise driver development.

Released in 2000, the Radeon core became known in later versions as the 7000 and 7500, reflecting its DirectX 7-compliant features set. The core established a number of notable firsts, such as a complete DX7 bump mapping implementation, hardware 3D shadows, hardware per-pixel video-de-interlacing, and a reasonably good implementation of many advanced DX8 pixel shader effects.

nVidia products of that period delivered greater raw power in terms of fill rates, but ATi started to open up a clear quality and shader performance advantage. Still, it was only the three series of Detonator drivers that unlocked an unexpected 20 per cent performance gain that enabled nVidia to hold on to the performance crown.

ATi proved the Radeon card had not been a one-off by following up with the Radeon 2 (R200) core in 2001, marketed as the 8500. While again it lacked a little in raw power compared to nVidia's offerings, it offered great visual quality, strong DirectX 8.1 shader performance, and a rich feature set. As with other ATi products, it proved popular with OEMs, partly because it offered wider motherboard compatibility than nVidia's offerings.

Driver support continued to be an area of weakness for ATi, although over time, this was considerably improved. The 8500 established ATi as a serious performance and feature-integrated chipset competitor to nVidia.

The year 2002 saw ATi introducing a new Radeon architecture. Designed from the ground up for DirectX 9 operation, the 9700

turned out to be one of the most innovative graphics cards ever. At the same time, they also introduced their ‘Catalyst’ driver suite, which addressed many of the quality, compatibility, and performance concerns raised about previous driver releases.

A decision was taken for core chip technology to be licensed to third-party “Powered by ATi” board manufacturers, adopting nVidia’s business model. All this suddenly put nVidia on the back foot for the first time since the NV1 project.

ATi refreshed the 9700 to the 9800 Pro in 2003, featuring a small and relatively quiet cooling solution. The 9800 went on to become one of the most popular and best-selling enthusiast cards of all time.

In the recent past, ATi has begun shipping the X800 XL PCIe card. Priced at \$100 (Rs 4,400) less than the competing 6800 GT product from nVidia, ATi may be right in believing they have once again found a winning balance of performance, features, process technology, and yields.

As of now, with the release of the GeForce 7 series, nVidia has become the market leader once again. ATi recently released a card to compete against the 7 series with the Radeon X1000 series.

The Xbox 360 will contain a custom ATi graphics chip.

The evolution of the graphics card industry has been a whirlwind after nVidia entered the market, and six-monthly production cycles have now become the norm. Come December, there will be something new from the nVidia stables, and as always, we will keep you posted.

In the next chapter, we talk about where gaming is headed.

The Future Of Gaming



The advancements in computer technology and console gaming has revitalised the entire gaming experience. Newer technologies are pushing the boundaries of our gaming experience. We take a look at what the future has in store for the hardcore gaming enthusiast.

7.1 The Next Step



Newer technologies such as high capacity DVDs, high speed graphic cards and new age consoles show the way forward

Gaming, as an industry, has travelled a long way in a very short period. And in the two decades that games have been developed on a really commercial scale, PC and console gaming have been the favoured areas for further development.

If we take a look at the scenario today, it looks like PC gaming will soon give way to consoles such as the Xbox 360 and the PlayStation 3; they have taken over the mantle of being the entertainment hubs. Their capabilities now transcend gaming—most seventh-generation consoles can play DVDs and other media, and they also house cutting-edge technology in terms of their microprocessors and memory chipsets.

Just a few years ago, no one thought a physics simulation chipset was a viable proposition. Storage technologies such as Blu-Ray and HD-DVD were just on the drawing board. The only dictum

that held true was Moore's law, and if that continues to hold true, in less than a decade we will be using gaming rigs that run at speeds of over 50 gigs. That, however, seems to be running into some rough weather, and physics does not seem to quite agree with the 'law'. The constraints placed on the development of superfast chipsets has resulted in scientists exploring different mechanisms for computing; though still in the infancy stage, mechanisms such as DNA computing may be our road to the future.



High capacity DVD formats such as the Blu-Ray will usher in a new age for gaming

Will developments here affect the way we play games? Gaming has been linked to computing ever since its inception, but it would be too early to speculate on the impact of nanotechnology and newer forms of computing on the gaming industry.

Is the present scenario a situation from which we can predict the gaming technologies of tomorrow—considering the leaps that technology takes, particularly in areas such as graphics and display technology? Perhaps. Let's take a look at technologies that have run us by, and the newer ones on the threshold, and thus gauge where the gaming industry is headed. We have started with the more feasible and down-to-earth, and then embarked on flights of fancy!

7.2 Physics And The Five Senses

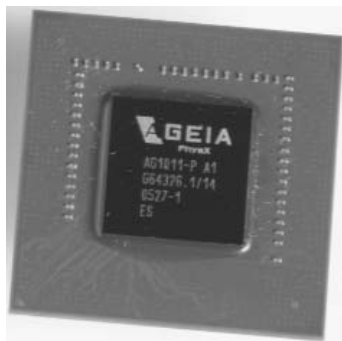


Advancement in technologies other than graphics and sound will be the driving force behind the new gaming experiences

The innovative 3D cards pushed gaming into a new realm, and subsequent technological developments resulted in highly advanced and extremely powerful gaming rigs. Some of the high-end gaming machines of today boast of supercomputer-grade processing capabilities.

The most popular technology that is being touted as the next big thing in gaming is the Physics Processing Unit or the PPU. Just as the graphics card took over the graphics processing job from the CPU, the PPU will take care of the physics aspect: such a processor would take care of the calculations for the dynamics of a moving body, fluid dynamics, hair and clothing simulation, and so on. In other words, it would make those characters in *Final Fantasy* more life-like.

PPUs are not just an idea: Aegia, a relatively small semiconductor company, has already come up with a PPU called PhysX; this is to play a role in the PlayStation 3's number-crunching prowess. Even Nintendo's Revolution is said to have a physics chip.



Aegia's PPU—The PhysX

The existence of PPU is also a boon for game developers, as they would not have to develop and program a separate physics engine—the processor would take care of that part. The emphasis would shift to graphics and maybe other aspects such as AI (Artificial Intelligence), real-time cinematics, or even playing around with touch, smell and taste.

Flights of fancy? Well, not quite: there is some meat to these speculations.

To make games more realistic and to take them to the next level, game developers would need to take a very serious look at the sensory perception aspect.

We have fairly decent visual displays and audio systems. Of course, there can be and will be further developments on the existing technologies. However, what if the display could be a surround experience just as sound is? We might move on from the plain, pixel-based flat-screen displays to surround displays. The gamer's immersion in the game would be augmented—he would have to dodge bullets whizzing in from all directions, in 3D space.

There are companies such as Ethereal Technologies working on such displays.

Volumetric Imaging Systems have come up with a workstation, VIS4D, which allows users to perceive real-time 3D images without

the need for glasses. This is called as ‘autostereoscopic technology’, and is being developed by a few companies.

Some of these displays can alternate between 2D and 3D viewing—this is achieved by using the revolutionary ‘switchable parallax barrier’ technology. The parallax barrier is a series of vertical slots carefully designed to focus pixels in different directions so the right and left eyes receive different lights; the viewer is thus able to see stereoscopic images and video.



The holographic 3D—a revolutionary display technology

Image separation is accomplished by ensuring the areas viewed are set at the same separation as that of the human eyes—about two and a half inches—so the right eye sees only the right-eye image and the left eye sees only the left-eye image. The parallax barrier is placed between the LCD and the backlight, and can be switched on and off. When off, the LCD acts normally and the screen looks no different from a normal LCD Monitor. This, however, requires a specific piece of software, and is 2D cannot be converted to 3D at the flick of a switch.

Of course you’d ask who needs 2D when you can have 3D all the time, but the point to remember here is that your games may all be 3D, but the display is intended for multiple use—other than just playing games, you can use the display for watching movies, TV programs and the like.

Surround sound is commonplace today, and the newer systems replicate real-life sounds pretty well. But hearing the sound of a tyre screeching, or an explosion, is just part of the experience. What if you could also see and feel the effects of the explosions or a crash? We’re not talking about actually getting burnt or break-

ing bones, but just about giving a good shake to our chairs and workstations! Headphones such as those from Rumblefx actually shake and vibrate according to the sound, and get you closer to the action!



Microsoft's Force Feedback controllers

Technologies such as Microsoft's Force Feedback have been around for quite a bit, but they don't quite throw you onto the wheel of your (virtual) car. Adapt this technology to future hardware, and you'd be assured of an earth-shattering experience.

Now sight, sound and touch can be taken care of with improvements in existing technologies, but what about smell and taste? Wouldn't you love to get a whiff of burning rubber while skidding along or giving the cops a run for their badges? Digiscents has got just the thing lined up. They claim to



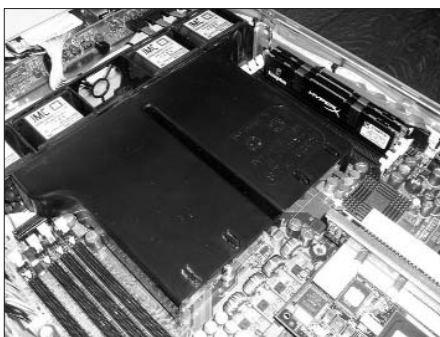
Digiscents' pathbreaking new gadget, The iSmell

have developed a device called iSmell which will be a 'speaker-sized computer peripheral device that attaches to the serial or USB port of your PC and plugs into a standard electrical outlet and emits naturally-based vapours into the user's personal space.'

7.3 7th-Gen Consoles And The Future Of Computer Gaming

Gaming has moved from being played on standalone consoles to computers—and then back to consoles that crunch numbers faster than regular computers. Many today believe the future of gaming lies in consoles, and that computers will soon give way to their snazzier and more powerful cousins. If you look at the present crop of gaming consoles, this does not seem a far-fetched proposition.

A look into the new-age (7th-generation) gaming consoles reveals not just the astounding computing capabilities of these beasts but also the newer processors that will take graphics technology to the next level. The processing power of the PS3 is said to be in the range



Powerful multi-core processors are the heart of new consoles

of 2.1 teraflops, or 2,100 gigaflops: to put this in perspective, mid-to high-end PCs today can manage just around 8 gigaflops!

With multi-core processors at the heart of these machines, the consoles will also house separate PPU's that will take up the onus of calculating the Physics in games. Needless to say, the graphics quality supported by these machines will be near life-like.

The PS3 and Xbox 360 will both come with removable hard disks, while the Nintendo Revolution is said to have a compact Flash drive that houses around 500 MB data. Not very large, but then, Nintendo is banking on online and thin gaming to pave the way for the future. Every aspect of the consoles—right from the technology under the boot to the ergonomics—will push the limits of the future.

But for how long will these consoles stay before giving way to virtual reality (VR) consoles? The consoles of the future may be able to combine a number of technologies including display, sound and force feedback. Hardware and game developers could take a cue from sci-fi films, where VR systems were used for recreation, relaxation and simulation combat.



Virtual Reality is no longer restricted to sci-fi films

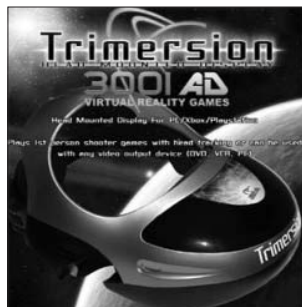
With simulating techniques already being developed and advances in VR happening, the days of being in the middle of the battlefield does not seem to be far off. Controllers for games would also be futuristic—a simple joystick or controller pad just won't do. You would instead be saddled with a gun if you're engaging in combat, or perhaps a light sabre if you're cool enough to handle it. A headset or a 3D display unit would be *de rigueur*. In addition to these, to simulate the seismic shakeouts during a crash or a volcanic eruption, you might even have special boots strapped to your feet—or even a special floor pad. Sensors would be attached to your body to mimic your movements in the virtual world.

Such devices aren't as far off in the future as you might think. Take the case of a system called 'Trimersion', which was showcased at the E3 games exhibition of 2005. The 'device' promises 360-degree head tracking for home gaming. It uses a binocular video system that delivers QVGA resolution (320 x 240). According to Kopin, the manufacturer of the video system, this is the virtual equivalent of a 35-inch display viewed from a distance of seven feet.

The VR platform promises gamers the ability to control key ele-

ments of their virtual environments, such as point of view and player position, with an intuitive turn of the head instead of a thumb or finger command. A non-tracking version of Trimersion is available for players who prefer mouse or hand control.

Trimersion also lets gamers wield a pistol-style input device, rather than push buttons, to shoot within the game. The best part, though, is that the headset can be used in combination with the Xbox 360 and the PlayStation 3 consoles, giving gamers access to a number of gaming titles. Something that is bound to make the hardcore gamer salivate?



The Trimersion is just what the doctor ordered for the gamer

There's a small catch to this rosy picture, though: the headset will retail at \$500 (Rs 22,000), higher than what a 7th-generation console will cost. But remember that computer and console prices do keep falling!

So will the massive advances in console technologies and the fall in their prices result in PC gaming being relegated to the past? Gaming industry analysts say that with DirectX10, PC gaming will take a new and dramatic turn. DirectX10 will be able to process information and generate images and textures (these combine to give you the graphics you swoon over) in real-time. The cinematic experience you see in game promotional videos will soon be seen in the games you play.

Analysts believe this sort of graphics will far exceed the graphics quality afforded by the PS3 or the Xbox 360. Slated for a 2007 release, this next-generation presentation subsystem will give the PC that extra edge in gaming and other graphics processing capabilities. So even though consoles seem to show the way forward with their massive number crunching abilities, systems such as the DirectX10 will reinforce the presence of the PC on the gaming scene.

7.4 Games Onward

No matter what happens to the technology involved in gaming or the enhancements in the graphics and hardware department, one thing will remain the same—the storyline. A racing game will always need you to reach the chequered flag before your opponents do. A game such as *Counter-Strike* will always require you to kill infiltrators or terrorists.

What will change are the game formats and the machine's rendering capabilities—development in the games of the future will depend on the advances made by the hardware.

Companies such as Philips are working on technologies that will be able to control lights, heaters, fans, audio, video and even gaming-related 'furniture', all in order to heighten the gaming experience. Philips plans to launch a technology called amBX as early as May 2006. The company claims amBX will revolutionise the way people play and experience games.

"The treacherous road to Saigon will turn your room jungle green, swimming with dolphins will splash it deep blue, Halo jumps will turn your fans on full, lightning storms will strobe your white lighting, and attack ships on fire off the shoulder of Orion will blast on your heaters." Let's hope they manage to put the brakes in the right places and don't toss us off our chairs!



Philips' amBX is set to change the way people play games

Apart from innovations in hardware and the ambience, the future of gaming will be influenced by advances in soft components such as AI and the much-maligned Emotion Engine, among

others. Smarter AI will translate into tougher games with your computer opponent being able to anticipate your next move—this would mean your opponent would be more difficult to hoodwink! You'd develop better gaming skills.

Another very different approach that game developers and game engine creators intend focussing on is the Emotion Engine. Contrary to what it sounds like, the Emotion Engine is not a core or engine like a game engine or graphics engine. It's a product of the game's AI, a feature in games that will heighten the emotions of gamers similar to feelings experienced when watching movies.

A little too vague? OK, an Emotion Engine will, for example, infuse a sense of pride as you thump the last ball of the match for that winning six—a feeling quite similar to what you'd experience when you do the same in real life.

The Emotion Engine will be able to deal with other emotions such as fear, anger, and more. In-game advertising, too, will take on a new meaning, with companies trying to leverage the technological advances and not just display a banner advertising their products. You can probably smell or even taste what these dream merchants have to offer.



Games like Kkrieger might usher in a new format of games—Thin Games

Presentation systems, too, have played a major role in the way we play our games today. Systems such as DirectX have taken gaming to a higher level in terms of realistic graphics and sound quality. Thin games—or games with a large amount of the textures and images stored on a common server—will be one of the future paths gaming might take. Multiplayer games on the Internet will soon be the norm.

Talking of thin games and Internet gaming brings us to the new path a few game developers are taking—that of reinventing the engine. Games such as *KKrieger*, which takes up just 96 KB, could be indicative of the future of gaming. This FPS occupies almost no space on your hard disk, but the gameplay is as good as in a ‘regular’ FPS, and the graphics quality is stunning.

How does such a small file generate such high-end graphics and textures? The answer lies in real-time graphics. The game’s engine generates the graphics on the fly. This means that as you play, the game engine understands your moves and creates the appropriate texture and images. Apart from the obvious advantage of saving you disk space, this also ensures the graphics you see are more realistic and in sync with your actions. Games such as these, however, will require very high-end machines.

Whichever way the industry moves, you can be sure it would be only to enhance your gaming experience and make you gasp for more. Time to check the *Skoar!*

A Mixed Bag



Gaming is serious business, but there are the light and weird sides to the phenomenon as well. In this little chapter, we look at some fun links, some seriously weird and/or funny news, and some other miscellaneous gaming-related stuff that's simply unbelievable. We have also included bits of nostalgia here, reflecting what some of us at *Digit* experienced in the process of writing this book!

Gaming-related information on the Web is overload, and each of the links mentioned on this page leads you to more fun stuff!

8.1 Divorced Couple Argue Over Virtual Items

From <http://snipurl.com/digitgame1>

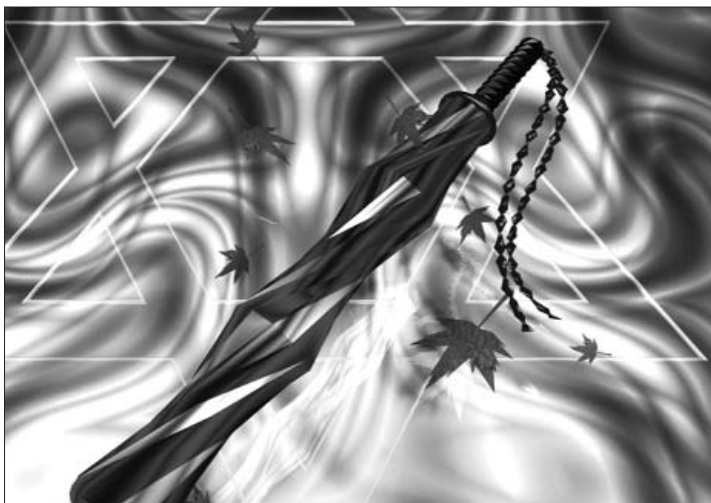
‘Gaming Steve’ posted the following news snippet on July 14, 2005.

“Divorced Couple Argue Over Virtual Items”

I guess it was just a matter time before we would start seeing this ... a couple filing for divorce in China is arguing over custody of their computer game characters and virtual items.



A snapshot from *Legend of Mir 2*



A snapshot from *Legend of Mir 2*

According to the Chongqing Business Post, Mr Wang from Chongqing and Ms Ye from Huibei met last September on Shanda's online game *Legend of Mir 2*. Wang saved Ye's character from being killed by another player and the two quickly fell in love. The couple married at the end of October but decided to get a divorce this last June. During their marriage, the couple jointly played over ten *Mir 2* accounts, attaining level 40 to 50 status for all of them, which I am told is quite high. All the characters and virtual items are estimated to be worth 40,000 to 50,000 Yuan, and Wang said that he wants to keep the accounts and virtual items and is willing to give their joint apartment to Ye. However, Ye wants to split the apartment and game items equally (how do you split an apartment?).

Remember, if you're going to share your virtual items with your spouse, make sure to write your name on all your items!

8.2 South Korean Man Dies Gaming

From <http://snipurl.com/digitgame2>

On 10 August 2005, it was reported that a South Korean man had died after playing an online computer game for 50 hours with few breaks. The 28-year-old collapsed after playing the game *Starcraft* at an Internet cafe in the city of Taegu, according to South Korean authorities. The man had not slept properly, and had eaten very little during his marathon session, said police.

Multi-player gaming in South Korea is extremely popular thanks to its fast and widespread broadband network. Games are televised and professional players are treated, as well as paid, like sports stars. Professional gamers there attract huge sums in sponsorship and can make more than \$100,000 a year.

The man, identified by his family name, Lee, started playing *Starcraft* on 3 August. He only paused playing to go to the toilet and for short periods of sleep, said the police. "We presume the cause of death was heart failure stemming from exhaustion," a Taegu provincial police official told the Reuters news agency.





A snapshot from *EverQuest*

“They are the types of games that completely engross the player. They are not games that you can play for 20 minutes and stop,” said Professor Mark Griffiths of Nottingham Trent University about the incident. He warned there was a difference between “healthy enthusiasm” and “unhealthy addiction.” Unlike help for traditional addictions, such as gambling, there is very little help for computer game addiction, he said. “It is not taken seriously yet—it is the same for internet addiction.”

Here’s what we can learn from the incident—

*Gamers take note of gaming’s perils:
Don’t end up fragging dark hell’s devils!
Poor Lee couldn’t leave his gaming chair:
Gamers, of such deadly habits, beware!
He played and he played and he played some more;
He played ‘til he knocked on heaven’s door.
Too seriously he took his combat sim—
“Game over” turned out too literal for him.*

8.3 Gaming Turns Suicidal

And in an even more bizarre case of online game addiction, a man took own life after long hours on the Web playing *EverQuest*. Shawn Woolley loved *EverQuest* so much that he played it just minutes before his suicide. The following is from jsonline.com.

The 21-year-old Hudson man was addicted to *EverQuest*, says his mother, Elizabeth Woolley of Osceola. He sacrificed everything so he could play for hours, ignoring his family, quitting his job and losing himself in a 3-D virtual world where more than 400,000 people worldwide adventure in a never-ending fantasy.

On Thanksgiving morning in 2004, Shawn Woolley shot himself to death at his apartment in Hudson. His mother blames the game for her son's suicide. She is angry that Sony Online Entertainment, which owns *EverQuest*, won't give her the answers she desires. She has hired an attorney who plans to sue the company in an effort to get warning labels put on the games.

"It's like any other addiction," Elizabeth Woolley said last week. "Either you die, go insane or you quit. My son died."

In the virtual world of *EverQuest*, players control their characters through treasure-gathering, monster-slaying missions called quests. Success makes the characters stronger as they interact with other players from all over the real world.

Woolley has tried tracing her son's *EverQuest* identity to discover what might have pushed him over the edge. Sony Online cites its privacy policy in refusing to unlock the secrets held in her son's account.

She has a list of names her son scrawled while playing the game: "Phargun." "Occuler." "Cybernine." But Woolley is not sure if they are names of online friends, places he explored in the game or treasures his character may have captured in quests.

“Shawn was playing 12 hours a day, and he wasn’t supposed to because he was epileptic, and the game would cause seizures,” she said. “Probably the last eight times he had seizures were because of stints on the computer.”

Woolley knows her son had problems beyond *EverQuest*, and she tried to get him help by contacting a mental health program and trying to get him to live in a group home. A psychologist diagnosed him with depression and schizoid personality disorder, symptoms of which include a lack of desire for social relationships, little or no sex drive and a limited range of emotions in social settings.

“This fed right into the *EverQuest* playing,” Woolley said. “It was the perfect escape.”

Jay Parker, a chemical dependency counsellor and co-founder of Internet/Computer Addiction Services in Redmond, Washington, said Woolley’s mental health problems put him in a category of people more likely to be at risk of getting addicted to online games.

Parker said people who are isolated, prone to boredom and lonely are much more susceptible to becoming addicted to online games. Having low self-esteem or poor body image are also important factors, he said.

“The manufacturer of *EverQuest* purposely made it in such a way that it is more intriguing to the addict,” Parker said. “It could be created in a less addictive way, but (that) would be the difference between powdered cocaine and crack cocaine.”

Parker doesn’t make the narcotics analogy lightly. One client—a 21-year-old college student—stopped going to class within eight weeks after he started playing *EverQuest* his senior year.

After playing the game for 36 hours straight, he had a psy-

chotic break because of sleep deprivation, Parker said.

“He thought the characters had come out of the game and were chasing him,” Parker said. “He was running through his neighbourhood having hallucinations. I can’t think of a drug he could have taken where he would have disintegrated in 15 weeks.”

8.4 A Couple Of Totally Weird Games

<http://snipurl.com/digitgame3>

There are plenty of weird games out there, and we even played a couple of them (*See section 'Links'*). But we didn't play *Varmintz* and *Enigmo* because they just sounded too stupid! Read on...

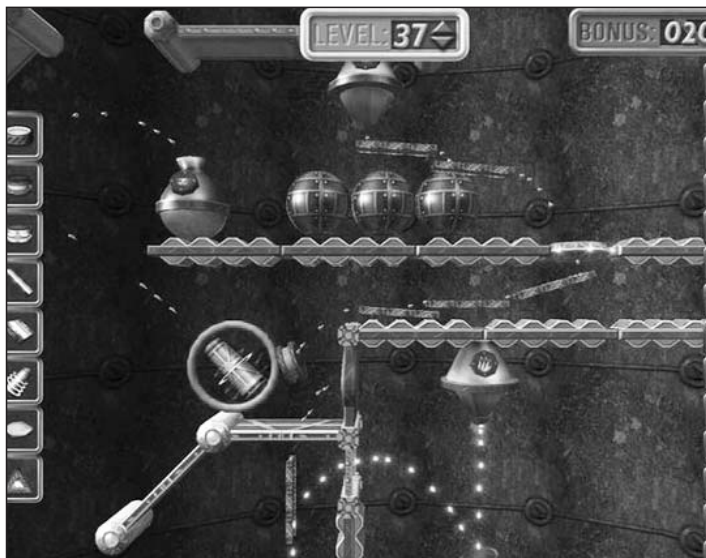
"Tired of playing same old boring games? There are dozens of wacky, offbeat or just plain weird games out there and I've got the scoop on the latest releases."

Varmintz (Skunk Studios) places the safety of a wacky crew of raccoons in your hands. In *Varmintz Deluxe*, you guide five furry creatures through an obstacle-packed maze. *Varmintz Deluxe* brings back classic hop-and-dodge style gameplay in a fast-paced, character-rich environment.

The game includes a range of characters and stars. *Varmintz* is a scrappy raccoon posse in search of golden eggs. Each of the more



Would you play *Varmintz*?



A screenshot from *Enigma*

than 50 levels contains a variety of challenging obstacles and in-game enemies, including rabid dogs, lumberjacks, cowboys, joggers, and skateboarders.

Oh yeah, it's the only game of this kind, where you have no weapons whatsoever. Good luck!

A free download of *Varmintz* is at www.deprice.com/varmintz.htm

Enigma (MumboJumbo) is a 3D puzzle game where you move various streams of flowing liquid so that the droplets get to their destination. Liquids (water, oil, and lava) fall from “droppers” and will bounce around the walls of a mechanism. You move and rotate into position various types of bumpers, sliders, accelerators, and sponges in order to divert the flow of the falling droplets. The faster you complete each level, the more bonus you will receive...

A free download of *Enigma* is at www.deprice.com/enigma.htm.

8.5 Keyboard Destroyers!

The games we used to play on the ZX Spectrum back in 1987 or so were pretty good, considering the Spectrum had 48K of RAM and no hard disk. In fact, it's amazing how game developers back then could squeeze such good games into that much of space. But as always, there were the good and the bad, and while we won't go into too much detail, we should mention something retarded we used to do—play the so-called ‘Keyboard Destroyer’ games.



The ZX Spectrum

The most popular amongst these was a game called *Daly Thompson's Super Test*. As far as we can recall, it was a decathlon of sorts. All the sports had the same basic tactic: hit the keyboard as fast (and therefore as hard) as possible. Allow us to explain.

The first sport was a 100-metre sprint. To make your runner run faster, you had to press the keys as fast as possible. The second was a skiing contest: to make for a perfect landing, you had to press the keys as fast as possible when your character was making the jump off the cliff. The third sport was swimming; to swim faster, you had to press the keys as fast as you could... you get the idea!

The game built up a terrific feeling of brotherhood and unity amongst those present. There would be one person playing it, and the others would cheer him on—and you guessed it, the cheers mostly consisted of “Harder! Harder! Harder!” Talk about retarded!

Eventually, some keys would break, and that involved a visit to computer repair shop. The conversation there would typically go:

“Keyboard’s broken.”

“Daly Thompson’s Super Test?”

“Yeah.”

8.6 Plague In An Online World: Is This For Real?

“Deadly Plague Hits Warcraft World”

—BBC News, 22 September 2005



A scene from *World of Warcraft*

For those of you (and that's most of us) not familiar with how real the virtual can get, the following excerpts from the above article will sound way out:

A deadly virtual plague has broken out in the online game *World of Warcraft*. Although limited to only a few of the game's servers the numbers of characters that have fallen victim is thought to be in the thousands.

Originally it was thought that the deadly digital disease was the result of a programming bug in a location only recently added to the *Warcraft* game. However, it now appears that players kicked off the plague and then kept it spreading after the first outbreak.

WOW is an online game that gives players the chance to adventure in the fantasy world of Azeroth that is populated by the usual mixture of humans, elves, orcs and other fantastic beasts. As players explore the world, the characters they control become more powerful as they complete quests, kill monsters and find magical items and artefacts that boost abilities.

To give these powerful characters more of a challenge, Blizzard regularly introduces new places to explore in the online world. In the last week, it added the Zul’Gurub dungeon which gave players a chance to confront and kill the fearsome Hakkar - the god of Blood. In his death throes Hakkar hits foes with a “corrupted blood” infection that can instantly kill weaker characters.

The infection was only supposed to affect those in the immediate vicinity of Hakkar’s corpse but some players found a way to transfer it to other areas of the game by infecting an in-game virtual pet with it. This pet was then unleashed in the orc capital city of Ogrimmar and proved hugely effective as the Corrupted Blood plague spread from player to player.

Although computer controlled characters did not contract the plague, they are said to have acted as “carriers” and infected player-controlled characters they encountered.

The first server, or “realm” as Blizzard calls them, affected by the plague was Archimonde; but it is known to have spread to at least two others. The spread of the disease could have been limited by the fact that Hakkar is difficult to kill, so some realms may not yet have got round to killing him and unleashing his parting shot.

The digital disease instantly killed lower level characters and did not take much longer to kill even powerful characters.

8.7 AI Gone Bloody Wrong

Duke Nukem 3D was a very popular FPS game back in around 1997. You had the single-player and multi-player options, and included in the multi-player option was the option to play with bots. They looked just like you, only they wore different colours.

It was almost impossible to defeat the bots, but that stemmed from the fact that they didn't have to figure out much to calculate their moves: the game was hardcoded into them! It was in God mode that we discovered the cracks — and a particularly gory one — in the AI.

Well, there's this weapon called the shrinker, that you use to shrink the other guy. You then stomp on him to kill him, and there's a little pool of blood. Now get into God mode, and all the bots get into God mode as well. And we discovered a scene where the bots showed the true colours of their intelligence.



Duking it out!

All you had to was get two bots into a room, shrink one of them, and then step way back. The shrunken bot would shrink the other bot, and then the fun would begin. Immediately after shrinking the second bot, the first bot would stomp upon him, creating a pool of blood. But this is God mode, right? So the second bot wouldn't die. Then the second bot would get back his powers, shrink the first bot, and stomp upon him. More blood. And on and



The graphics in *Duke* were primitive, but we loved the game!

on it would go. You, as Duke, could just watch the scene and enjoy the fun - if you call gore fun, that is!

After a minute, the room would be entirely splattered with blood, the two God-bots stomping each other. And after a few minutes, the entire screen would be just a deep red, with just a little movement visible in the background! Great times! We wish we'd saved some screenshots...

8.8 Sites To Visit

1. “Video Game Parodies”



One of the funniest things to do with Flash is play around with old video game sprites (characters). You can search for sprites on the Web, or make your own! Simply download an emulator, find a room for the game (note: if you don't own the original copy, this is illegal!), and rip the sprites out yourself! I do this by making screen grabs and cutting out the characters in Photoshop...

Once you have your characters, you can create all sorts of sick debaucheries in Flash. Some of my favourites thus far have been ones dealing with Mortal Kombat. We have broken up the more popular video games into their own collections...

<http://snipurl.com/digitgame4>

2. Too much gaming?



What happens when you've been playing a game too much? On this page are 700 - yes, seven hundred - "Signs you've been playing too much Neo Geo." OK, we couldn't find a site that lists 700 signs you've been playing too much UT or Doom 3, but this is a fun page. Even if you haven't played Neo Geo. (Visit neo-geo.com for more on the game.)

<http://snipurl.com/digitgame5>

3. A Generic Console RPG Plot

A Generic Console RPG Plot

Well, having played a whole pile of console RPGs translated and brought over to the US (22 at last count), I have to say that, as much as I like them, I'm a tad sick of some of the repetitious plot elements. As such, here's my own cynical version of a Generic Console RPG plot from Japan. Of course, not all games have all of these stereotypical elements (and some are thankfully much more original), but maybe some of these will sound familiar to a console RPG veteran... (More later.)

History: A now-peaceful world dimly remembers an ancient past where powerful forces of good battled against an evil force that sought mass destruction. The forces of good prevailed, and a few centuries of prosperity and forgetfulness followed.

Now: A dark(blue?)-haired young man, Our Hero, grows up in a quaint, bucolic, picturesque farm town; of course, he's an orphan. As time progresses, he becomes aware of something about himself that is different. He has powers that no one else has. Eventually he becomes a social outcast because he's misunderstood, and he must go traveling around the countryside in search of his true nature. Often, he is blessed for the increase in monsters in the world.

Along the way, Our Hero meets a young (blood?) princess who joins up and adventures with him; she turns into the primary magic caster of the team. He'll also meet at least one seriously strong (usually male) knight, an assassin with kooky weapons (mask or blade), and at least one really weird character (owl, a robot, a spirit, a sentient mine, a talking animal, or a first-world-boy, etc.). He also is befriended by mysterious spirits who talk to him when he's unconscious and tell him he has a special destiny to save the world.

Around this time, Our Hero finds mysterious devices that look suspiciously like rocketeer pads... However, they are not operational yet. Our Hero, to get around, must first use a ship to travel across the ocean. He still can't go everywhere until he later gets a more powerful ship. More on this later.

Our Hero inevitably winds up in the prince's (big and treasure-filled) castle and meets the king (and sometimes queen, too) at some point or other. Usually the Princess father disappears of what they're doing, and she winds up having to escape from the castle somehow to rejoin her friends. Of course, she little gaily like doing so, but she's sick of being a princess and just wants to be herself. Too bad the odds are good the king will somehow die before the end of the game...

As first the monsters they run into are fairly innoxious and small, but gradually the monsters get visibly larger and larger, and also more dangerous. At the same time, the scenery grows progressively harder, changing from peaceful forests, small towns, and gentle hillslands into darker forests, big dirty cities, and things like deserts and dungeons. Much, much later, the harsh scenery turns into sterile steel-to-concrete and other high-tech ruins.

Of course, Our Hero and his companions need strong weapons to survive. They find or buy progressively more powerful items. Strangely, Our Hero's own home town always seems to have the worst selection of weapons, and each new town he finds always seems to have something better (and more expensive) than what he already has...

Our Hero also runs up against "evil" human forces led by a misguided king of a different land. The bad king is just a pawn, though; some minister minister or advisor is at the king's side, manipulating him. And the minister has worse connections... That borgen king will, sometime in the future, reject of his ways, usually too late to do anything.

Well, having played a whole pile of console RPGs translated and brought over to the US (22 at last count), I have to say that, as much as I like them, I'm a tad sick of some of the repetitious plot elements. As such, here's my own cynical version of a Generic Console RPG plot from Japan. Of course, not all games have all of these stereotypical elements (and some are thankfully much more original), but maybe some of these will sound familiar to a console RPG veteran... (More later.)

History: A now-peaceful world dimly remembers an ancient past where powerful forces of good battled against an evil force that sought mass destruction. The forces of good prevailed, and a few centuries of prosperity and forgetfulness followed...

Now: A dark(blue?)-haired young man, Our Hero, grows up in a quaint, bucolic, picturesque farm town; of course, he's an orphan. As time progresses, he becomes aware of something about himself that is different. He has powers that no one else

has. Eventually he becomes a social outcast because he is misunderstood, and he must go travelling around the countryside in search of his true nature. Often, he is blamed for the increase in monsters in the world.

Along the way, Our Hero meets a young (blond) princess who joins up and adventures with him. He'll also meet at least one unusually strong (usually male) fighter, an inventor with kooky weapons (male or female), and at least one really weird character (say, a robot, a sprite, a sentient onion, a talking animal, or a feral wild boy). He also is befriended by mysterious spirits who talk to him when he's unconscious and tell him he has a special destiny to save the world.

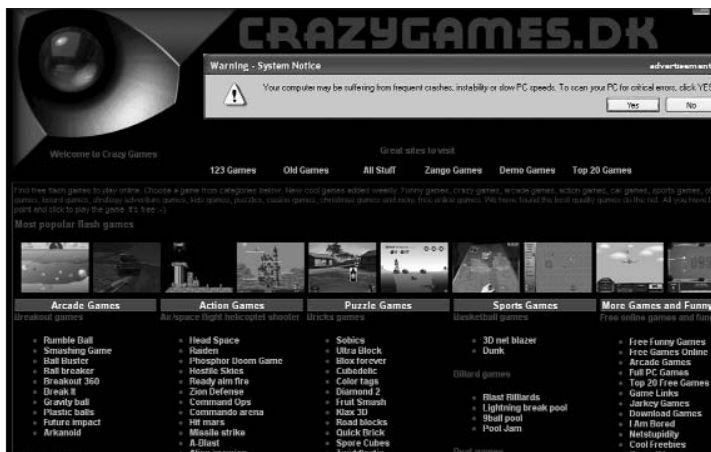
Around this time, Our Hero finds mysterious devices that look suspiciously like teleporter pads.... However, they are not operational yet. Our Hero, to get around, must first use a ship to travel across the ocean. He still can't go everywhere until he later gets a more powerful ship. More on this later...

<http://snipurl.com/digitgame6>

4. Lots And Lots Of Fun, Free Games

Here's what the first two lines on the main page say:

Choose a game from the categories below. New cool games added weekly. Funny games, crazy games, arcade games, action games,



car games, sports games, old games, board games, strategy adventure games, kids games, puzzles, casino games, christmas games and more free online games. We have found the best quality games on the net. All you have to do is point and click to play the game. It's free :-)

www.crazygames.dk

5. “Twenty things gamers want from the seventh generation of game consoles”

‘Give us A.I. that will actually outsmart us now and then.’

The section is all about the screenshot at the beginning, so you’ll have to see it on the site.

‘Give us a genre of game we’ve never seen before. Something that’s not an FPS or an RPG or Madden NFL or...’

Excerpt from this section:



“Why isn’t there a spy game where we actually get to be a real spy rather than a hallway-roving kill machine? You know, where we actually have to talk to contacts and extract information and tap phones and piece together clues, a game full of exotic locales and deception and backstabbing and subplots? A game where a gun is used as often as a real spy would use it (that is, almost never)?

“Where’s the game where we’re a castaway on a deserted island and the object of the game is to find food and clean water and build a shelter, a game where we can play for one month or six months, because whether or not we get rescued is randomised? Where every time we restart we get a different island with different wildlife and vegetation and water sources?”

‘Don’t bull**** us on the difficulty’

Gradually tougher enemies, more enemies, mind-bending puzzles, it’s all good. It’s all fair. But DO NOT try to artificially make your game harder with:

Arbitrary triggers in RPGs. Why isn’t the Dark Elf waiting at the Black Temple like he said? Because I haven’t talked to every fucking person in town yet. Can we at least write in some kind of actual cause and effect here that might make some kind of actual sense to me? I don’t get any sense of reward by randomly activating subroutines via mind-numbing repetition.

<p>Home</p> <p>Forums</p> <p>Archives</p> <p>JDate</p>	<p>the Grand Canyon, assuming each FLOP were the size of a muskrat. So what do gamers want from all that money and FLOP? Just ask them.</p> <div data-bbox="350 220 880 486">  </div> <p>20 things gamers want from the seventh generation of game consoles</p> <p>1. Give us A.I. that will actually outsmart us now and then.</p> <p>Look at the little guy. The one on the left. The one who's just a head.</p> <div data-bbox="367 659 857 796">  </div>
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Ammo starvation. I'm looking at you, Resident Evil for the Gamecube. I have a gun. Let Me Use It. Don't pretend your game is "challenging" because you only give me four bullets to kill eight zombie dogs with.

Confusing, and mapless floor plans. Did you remember when you were a kid and you got bored on weekends, how you would go to a large building, a hotel or a hospital, then wander around for several hours looking for a certain room? While zombies attacked you? Neither do we. That's because, much to the surprise of FPS game makers everywhere, wandering around lost in hallways isn't fun.

If you game wizards are so proud of your sprawling levels and alternate routes, GIVE ME A MAP OF THE LEVEL. If I'm not playing to have fun, then why the hell do you think I'm playing?

Instant-Failure Stealth Levels. Ack. This brings back horrible memories of a Goldeneye level where if you tripped an alarm, an

"You know the TeleTubbies, they get on your nerves, so you'll get them out of your system HERE ! Kill them all with no mercy. Keys 1,2,3 to choose the weapons (chainsaw for bottom close distance, pistol for middle part, and riffle for far distance). Aim and click with the mouse. Bonuses for headshots."

Then there's "Pedestrian Killer": "The name of this game says it all! You're the car driver and no pedestrian should get out of your wheels! All played with the mouse, nothing else to do than run over them all! Only their blood may remain on the street!"

And many, many more. Just make sure to keep your under-16 kids away from these. Not that they'll really become bloodthirsty after playing a couple of Flash games, anyway - these games are, in our opinion, much more funny than gory!

<http://snipurl.com/digitgame9>

7. A cool forum for many gaming-related things:

<http://snipurl.com/digitgame10>



Need to vent? Visit "Anger and Gaming". Wondering if "is it just me, or...?" Visit that forum. Want to speak about a terrible game you've played? Visit "Worst games ever." There are 85 different sections on the page! You'll need to register to post, of course.

8. Funny Games

Where can you blast farting pigs? Where can you play “Holy Cow”, where you are, well, a dead cow that wants to enter the gates of heaven? Or a game where you’re a rat in a trap? Find all these and more funny games at



<http://snipurl.com/digitgame11>

Each of the links (except for the broken ones, not too many) bring up a new window, and in several of those, you can find links to more weird games.

9. More weird games!

<http://snipurl.com/digitgame12>

You can play the games listed on that page, and you can also choose your category - Arcade, Sport, Puzzle, Shooter, Word, and many more.

10. 1up.com—"Where gamers call home!"

<http://www.1up.com/>

8.9 Essential Gaming Facts

<http://snipurl.com/digitgame14>

We thought we should end this chapter with some essential facts. The theme of this paper is “Who plays what?” Here are some excerpts from that paper, entitled “2005: Sales, Demographic and Usage Data - Essential Facts About The Computer and Video Game Industry.”

- m 75 per cent of heads of households in the US play computer or video games.
- m The average game player age is 30.
- m 19 per cent of Americans over the age of 50 played video games in 2004, an increase from 9 per cent in 1999.
- m The average age of the most frequent game purchaser
- m 12 is the average number of years adult gamers have been playing.
- m 53 % of game players expect to be playing as much or more 10 years from now as they do today.
- m In 2004, 53 per cent of video game sales were for those rated ‘E’ (Everyone); the figures for ‘T’ (Teen) and ‘M’ (Mature) were 30 and 16 respectively.

The best-selling video game genres:

- m 30 per cent Action
- m 18 per cent Sports
- m 10 per cent Shooters
- m 10 per cent Children & Family Entertainment
- m 9 per cent Racing
- m 9 per cent Role-Playing
- m 5 per cent Fighting

The best-selling computer game genres:

- m 30 per cent Strategy
- m 20 per cent Family & Children’s
- m 16 per cent Shooters
- m 10 per cent Role-Playing
- m 6 per cent Adventure

- 5 per cent Sports
- 4 per cent Action

As you can see, sales for the different genres vary a lot between games for consoles and for computers. And contrary to what you might have believed, Children's and Family Games do make up a large segment of games sold!

Top 10 selling computer games of 2004 by units sold:

- The Sims 2
- Doom 3
- World Of Warcraft
- Half-Life 2
- The Sims 2 Special Edition
- The Sims Deluxe
- Battlefield Vietnam
- Call Of Duty
- Roller Coaster Tycoon 3
- Zoo Tycoon: Complete Collection

“What Else Are Gamers Doing?”

Gamers devote more than triple the amount of time spent playing games each week to exercising or playing sports, volunteering in the community, religious activities, creative endeavours, cultural activities, and reading. In total, gamers spend 23.4 hours per week on these activities, compared to 6.8 hours per week playing games.

Not what you expected, eh?

“What Kind Of Games Are Played Online Most Often?”

- 57 per cent Puzzle/Board/Game Show/Trivia/Card
- 19 per cent Action/Sports/Strategy/Role-Play
- 10 per cent Shockwave/Flash Browser Mini-Games
- 9 per cent Persistent Multi-Player Universe
- 9 per cent Other